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## Monterey, California



## THESIS

THE U.S. ARMS SALES TO  
THE GULF COOPERATION COUNCIL STATES

by

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September 1998

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**U.S. ARM SALES  
TO THE GULF COOPERATION COUNCIL STATES**

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Submitted in partial fulfillment of the  
requirements for the degree of

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from the

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## ABSTRACT

The purpose of this thesis is to discuss existing U.S. arms sales to the Gulf Cooperation Council states (GCC) and to propose an appropriate strategy for future arms trades. The GCC states' existing strategy for acquiring weapon systems has not been sufficient for the defense needs of the six countries. Each country has its own strategy and its main arms source. The reduction of the GCC states' resources due to a gradual reduction in oil price makes it necessary to consolidate their arms acquisition strategy to reach an efficient strategy that serves future defense requirements. U.S. weapon systems were discussed as one solution to obtaining state-of-art weapon systems with lower life cycle cost. U.S. foreign military sales (FMS) is a good tool to facilitate the arms trades between the U.S. and the GCC states. Direct offset was examined for future arms trades that enforce the GCC self-reliance. The U.S. M1A2 tank sales to Saudi Arabia and Kuwait were discussed as a case study to clarify proposals and recommendations. Lastly, recommendations for improving the FMS process were reviewed.



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## **I. INTRODUCTION**

### **A. PURPOSE**

The purpose of this thesis is to analyze the security assistance process between the six states of the Gulf Cooperation Countries (GCC) and the United States. The GCC consists of Saudi Arabia, Bahrain, Kuwait, Qatar, United Arab Emirates, and Oman.

### **B. BACKGROUND**

The significant oil reserves beneath the six Arabian Gulf states and the weakness of their defense systems have caused the regional threats to their security to increase, especially from Iraq and Iran. The Iraqi invasion of Kuwait at the beginning of this decade showed the inability of the six countries, individually or collectively under the umbrella of the GCC states, to defend themselves. The military capability that the GCC states could develop in the past did not match the enormous strategic importance of the GCC states. The small population of all GCC states did not allow the formation of large armies or other labor-intensive military structures to match the large populations and the standing armies of Iraq and Iran.

In order to compensate for the lack of personnel, the GCC states have focused on the acquisition of sophisticated, capital-intensive defensive weaponry from foreign suppliers. The United States, United Kingdom, France, and China were the main military suppliers to the Gulf states. However, the United States received the majority of those sales, especially after the Gulf War.

In the era of defense budget reductions around the world, all countries attempt to equip their forces with systems that have lower life cycle costs. In order to satisfy its customers, the U.S. security assistance program must provide an efficient method to produce needed systems from supporting U.S. manufacturers. Also, the six GCC states must combine their resources to acquire effective and sophisticated systems that would otherwise be unaffordable to any individual country. This cooperation would also ensure systems interoperability and standardization between the six forces, improving the defense of the region.

### **C. THESIS OBJECTIVES**

The objective of this research is to examine the existing security assistance program between the U.S. and the GCC states. The efficiency of the program will be analyzed and potential improvements identified that will benefit both the U.S. and the GCC states.

An analysis of the M1A2 tank foreign military sales case to Saudi Arabia and Kuwait will be made, and other alternatives to such cases will be examined. The analysis will focus on those costs which can be eliminated or reduced in the future. Cost reduction would encourage the participating countries to procure more systems and others to acquire the less expensive U.S. systems. The research will propose a strategy that will benefit all parties.

## **D. RESEARCH QUESTIONS**

### **1. Primary Question**

What are the disadvantages of arms sales processes to the individual six GCC states? How can the existing security assistance process be improved to minimize the disadvantages in the future, under the GCC?

### **2. Subsidiary Questions**

1. How could co-production and cooperation be implemented to improve the trade relations between the U.S. and the GCC?
2. What are the possibilities for the GCC to be self-reliant in producing arms in the future with the help of U.S.?
3. Do co-production and cooperation affect U.S. defense preparedness, especially in critical zones like the Gulf region?
4. How will security assistance (and foreign military sales (FMS) as one of the most preferable tools) reforms increase the level of foreign partnering in U.S. weapon systems?

## **E. METHODOLOGY**

The methodology used in this thesis research consists of the following information sources:

1. Conduct a literature search of books, magazine articles, Defense Acquisition Deskbook, General Accounting Office reports, and other library information resources.
2. Conduct interviews with the military attaché in Kuwait embassy in Washington D.C.
3. Conduct interviews with an expert from General Dynamics that produces the M1A2 tank.
4. Evaluate the benefits and the pitfalls of the FMS strategies for all parties by using the following methodology
  - a. Discuss the disadvantages of the current GCC states policy in acquiring their arms.
  - b. Discuss the importance of unity among the six states and how this unity will improve their weapon system procurement in the future.
  - c. Discuss different arms suppliers with the emphasis on the U.S. as the best among them for the GCC states.
  - d. Discuss different security assistance programs with emphasis on FMS and offsets between the U.S. and the GCC states.
  - e. Use the M1A2 FMS case as one example to clarify the idea. Life cycle cost is used as the principal criteria to choose the required weapon system.

## **F. ORGANIZATION**

Chapter II provides an introduction to the security situation in the six GCC states, the Gulf countries' expenditures to address threats, and the proportion of the U.S. weapon

exports to the six countries. Chapter II also lists some disadvantages of the GCC states' strategy in acquiring their needs of arms.

Chapter III discusses the security assistance program and shows the preference of the foreign military sales in relative with the direct commercial sales. Chapter III also discusses how foreign exports affect the defense industries. Lastly, the types of offsets are discussed.

Chapter IV discusses the future GCC defense acquisition and how to obtain the best weapon systems by performing the combination of foreign military sales with direct offset. The chapter discusses the effect of the offset and co-production strategies on the parties, especially the defense industries in the U.S.

The M1A2 Main Battle Tank FMS cases with Saudi Arabia and Kuwait are used in Chapter V to emphasize the analysis.

Chapter IV (summary, conclusion, and recommendations) summarizes the findings of the research and answers the research questions.



## **II. FOREIGN MILITARY SALES AND THE GCC**

### **A. INTRODUCTION**

The six Arab states of the Gulf have taken a variety of steps to enhance their security. First, they banded together in the Gulf Cooperation Council (GCC), a sensible move that not only provides a little more force, manpower and financial resources for defense purposes, but also makes considerable sense economically and culturally. Second, led by Saudi Arabia's predominant size and financial resources, the GCC states embarked on ambitious military modernization programs. These efforts cannot overcome obvious constraints of small size and limited manpower but, nevertheless, will help these countries to meet a myriad of lesser security threats. Third, the GCC states have worked toward accommodation with more powerful and radical neighbors in the Gulf, as well as elsewhere in the Arabian Peninsula and the Middle East. They have also sought friendship as well as economic and political cooperation with the U.S. and the West. However, mindful of the lessons of the past, they have insisted that military cooperation remain limited to an "over-the-horizon" role. Acquiring new weapon systems and signing bilateral agreements with the U.S. and other Western countries will enhance the security in the region and will help its stabilization.

### **B. THE SECURITY ENVIRONMENT OF THE ARAB GULF STATES**

The six Arab monarchies of the Gulf share much in common. Their small indigenous populations are predominantly Arab and Muslim. They are still tribal societies, strongly traditional, with an emphasis on the family. Most of ruling families

emerged around the eighteenth century out of a tribal environment, and their leadership continues to be highly legitimate in the eyes of nearly all nationals. Independence came in 1961 for Kuwait and in 1971 for Bahrain, Qatar, and the United Arab Emirates. While the modern Kingdom of Saudi Arabia dates only from 1934 under that name, its Al Sa'ud roots extend back several centuries. Oman has always been technically independent.

The six countries share a common legacy of traditional economies, based on pastoralism, pearling, and some fishing. Before oil, the decline of pearling and onset of the world depression had rendered the six countries poverty stricken. The discovery of oil in the decades between 1930 and 1970 was fortuitous, and their economies remain dependent on oil revenues, as well as oil-based or oil-fueled industries.

Each of the individual Gulf states has different strategic needs and vulnerabilities. Saudi Arabia is the largest of the Gulf states in terms of both geography and military forces and is the key to any successful effort at regional cooperation in defense. Yet, Saudi Arabia has a low ratio of forces for the space in its critical defensive areas, particularly along its border with Iraq. It cannot create an effective defense without its neighbors. [Ref.1: p.16]

Kuwait shares a common border with Iraq and is only a short distance from Iran. No foreseeable mix of Kuwait, Gulf countries, other Arab, or U.S. forces can offer Kuwait full security against another round of Iraqi surprise attacks or surprise Iranian air, amphibious, and missile attack. Kuwait's small territory and population keep its military

vulnerable, and the country also has massive oil and gas resources to protect. [Ref.1: p.16]

The other smaller Gulf states face more serious problems. They are spread along the coast of the southern Gulf. If any of these states fell into hostile hands, it would be a major strategic springboard for intervention by Iran or Iraq, or a constant threat to the internal security of its neighbors. A hostile air force or navy, based in the Gulf states, could also make it far more difficult for other Arab states or the U.S. to project power into the region. [Ref.1: p.16]

Iran presents different challenges. The waters of the Gulf provide a barrier to Iranian land and amphibious attacks on the main territory of the other southern Gulf states. At the same time, Iran's coast covers virtually all of the northern Gulf and extends into the Gulf of Oman. The Gulf does not act as a barrier to strategic attacks, naval attacks, infiltration, or arms smuggling. [Ref.1: p.16]

Bahrain, Qatar, UAE, and Oman have unique problems. They do not share a common border with Iran or Iraq, but they all lack strategic depth and adequate air and coastal defense capabilities and are vulnerable to Iraqi and Iranian attacks. Bahrain is small and relatively poor. Qatar is small, and has too small a native population to develop effective armed forces. The UAE shares the demographic and geographic problems of its literal neighbors. Oman must defend the Straits of Hormuz against any challenge by Iran. [Ref.1: p.17]

### C. COOPERATION WITHIN THE ARABIAN GULF STATES

The desire for a Gulf security pact dates back to the British withdrawal in 1971. The December 1976 Gulf foreign ministers' conference in Muscat ended, predictably, without agreement due to incompatibility of Iran and Iraq with the six smaller states. The Arab states had long mistrusted Iran. Iraq was the only revolutionary state in the region and, in times past, Iraq had actively sought to subvert its conservative neighbors. Ironically, it took the outbreak of hostilities to clearly identify the threat to Gulf security. The Iran-Iraq war provided the conditions necessary for the remaining six states to form a security organization.

The six Arab monarchies had much in common, including basic similarities in their political, economic and social systems. Most had maintained close ties for many years, and bilateral relations were close with Britain and the U.S. With the temporary removal of Iran or Iraq from inclusion, agreement on cooperation was assured. [Ref.2: p.115]

Military coordination to meet an external threat is more difficult to achieve. Even in combination, the GCC states are far smaller in total population, armed forces, and industrial base than Iran or Iraq. The combined number of GCC military personnel is less than 150,000. In contrast, Iraq has 600,000 men under arms while Iran totals over a half million regular troops. More importantly, GCC military establishments are new and untested. Arms acquisitions have skyrocketed in the last two decades, but trained indigenous personnel required to operate them are in short supply.

The GCC states made a start toward developing the cooperation defense capabilities when they set up the GCC in 1981. The GCC has since made progress in the form of common staff talks and limited numbers of common military exercises. It established a token rapid deployment force in Hafr al-Batin, Saudi Arabia, and made efforts to develop common procurement policies. [Ref.3: p.10]

During the Gulf war, Oman proposed that the GCC states cooperate to create a 100,000 man GCC force, but found itself virtually isolated within the GCC. Saudi Arabia pressed for a far less ambitious plan to upgrade the Peninsular Armored Force that had existed before the war, but also received little real support. The resulting disputes among the GCC states led to a situation where no substantive steps have been taken to create more integrated or interoperable forces. [Ref.3: p.11]

In spite of all the risks exposed by the Gulf War, the GCC states still tend to substitute rhetoric for military cooperation and serious planning. Discussion of military standardization, common support facilities, and common military production facilities led to far more words and studies than actions. [Ref.3: p.12]

#### **D. THE WEST'S RELATIONSHIP WITH THE GULF**

The relationship between Western states, including the U.S., and the GCC states is based on satisfaction of mutual interests. The West has been involved in the security of the region for many years. However, oil was the primary attraction for the U.S., unlike the imperial goals of Britain and France before it. As the British influence gradually declined in the 1960's, the United States started to fill the vacuum that was created by withdrawal of the British.

Logically, as long as the GCC states are blessed with oil and Western economies depend on this commodity, the West will always have interests in the region and will usually try to reformulate a Desert Storm style of coalition if the region is threatened. Additionally, the West has found an excellent market for their weapons in the Gulf region. This can be seen as the "tax" that the GCC states have to pay to the West. [Ref.4: p.77]

#### **E. THE UNITED STATES AND THE GCC STATES**

President Carter outlined his doctrine of the Arabian Gulf in the State of the Union Address on January 23,1980:

Let our position be absolutely clear. An attempt by any outside force to gain control of the Persian (Arabic) Gulf region will be regarded as an assault on the vital interests of the United States of America. And such an assault will be repelled by any means necessary, including military force.

This is a clear commitment from the U.S. to defend its vital interests in the region. [Ref.5: p.3] The U.S. later assumed full responsibility to respond to any outside aggressor on the GCC states by signing individual agreement between each of the GCC states and the U.S.

Improvement in U.S.-GCC relations complemented the enhancement of U.S. military capability. The strength and nature of U.S. relations differed with each GCC state as a function of numerous factors such as domestic politics in regional states, geopolitics, and intra-Arab politics. But in general, U.S. relations with the GCC have improved immensely since 1960's. Desert Storm played an important role in this evolution. After Desert Storm, the U.S.-Kuwait defense co-operation Agreement was

signed in September 1991 and provided for U.S. access to Kuwaiti military facilities, prepositioning of defense material for U.S. forces, and joint exercises and training.

The U.S. also updated its access agreement with Oman and with Qatar and Bahrain. Bahrain, which served since 1949 as host of the U.S.' small Middle East Force, renewed its access and prepositioning agreement with Washington in October 1991. Qatar in turn signed a twenty-year defense co-operation agreement on June 23, 1992, which also allowed U.S. access and prepositioning. [Ref.5: pp.104-106]

While the U.S. commitment to Saudi security was long standing, Desert Storm raised the U.S. commitment to the level of a security guarantee, absent written formalities. Although the U.S. and Saudi Arabia have not signed a security agreement, Saudi Arabia has agreed to proceed with existing arrangements that allow the U.S. to use its air bases and ports and to coordinate training and military exercises. [Ref.7: p.68]

Security assistance programs and direct military sales were an important facet of America's new defense strategy in the Arabian Gulf region. In the aftermath of Iraq's invasion of Kuwait, the Bush administration sought to use the opportunity to bolster U.S. security assistance programs. The effort was made to address regional imbalances, and large security assistance programs were proposed which would concurrently address the GCC's immediate needs during the Gulf crisis and, hopefully, establish a more favorable balance of power in the Gulf region in the longer term. Secretary Baker told the House Foreign Affairs Committee, "We would expect the states of the Gulf and regional organizations such as the Gulf Cooperation Council (GCC) to take the lead in building a reinforcing network of new and strengthened security ties." [Ref.8: p.8]

## **F. GULF COUNTRIES AND ARMS SALES**

While the six Gulf states are loosely allied within the GCC, each state is dependent on the strength of its own individual military capabilities and the power projection capabilities of the U.S. and other Western states. Its efforts at unity are more rhetoric than reality, and this is particularly true of its military effort. The GCC states have made only limited progress towards developing effective economic and security arrangements. They are deeply divided over how best to strengthen the role of the GCC in creating integrated military forces, defense plans, and procurement efforts. [Ref.1: p.1] The following paragraphs will summarize the total weapon systems exports to the individual GCC states and identify the proportion of exports from the U.S.

### **1. Saudia Arabia**

Saudia Arabia is the largest among the six countries dealing with the foreign military sales. The relationship between the U.S. and Saudia Arabia started in the late 1950's. In 1962, following the Yemeni crises, Saudia Arabia first began to look seriously at improving its armed forces. Wars in the Sinai only exacerbated the Saudia Arabian Government's concerns over its military strength and regional stability. Revenue from increased oil profit beginning in the early 1970s made it possible for Saudia Arabia to finally start strengthening its armed forces. One of Saudia Arabia's largest buys involved U.S. AWACS and F-15 fighter aircraft, making it the only foreign country to have both of these aircraft in the force structure. [Ref.8: p.3]

All U.S. military sales to Saudia Arabia, as well as construction sales, are on a cash basis. The vast majority of these sales are processed through the FMS system. Roughly

one-quarter of all U.S. worldwide FMS sales have been to the Saudi Arabian Government. Since 1950, these FMS sales to Saudi Arabia have totaled over \$64 billion. Saudi Arabia has also made almost \$2 billion in direct commercial purchases of defense articles and services from United States. [Ref.8: p.3]

Although Saudi Arabia has diversified its arms procurements from other sources, it's clear that the U.S. remains the main source for Saudi procurement.

## **2. Kuwait**

Kuwait has increased its imports from the U.S. since the Gulf War. It has often made deliberate efforts to import from a wide variety of countries, emphasizing politics over interoperability and standardization. Kuwait imported \$2.04 billion worth of arms during 1992-1994. A total of \$1.8 billion came from the U.S., \$100 million from France, \$30 million from other Middle Eastern countries, \$80 million from other East European countries, and \$30 million from other countries. During 1981-1994, however, only about half of Kuwait's arms came from the U.S. One purpose of the latest shift to U.S. systems is to improve and standardize U.S. and Kuwaiti weapon interoperability. The two states signed a 10-year, bilateral defense agreement in 1991: [Ref.1: p.25]

## **3. Bahrain**

Bahrain is dependent on the U.S. for arms import. Bahrain imported \$1.4 billion worth of weapon systems during 1979-1994. It has spent less on arms imports during the four years since the Gulf War than it did during the four years before it. Bahrain only purchased \$200 million in new arms during 1991-1994, all from the U.S. This total

compares with \$600 million worth of new arms sales agreements during 1987-1990, the period before the Gulf War. Similarly, Bahrain took delivery on \$300 million worth of arms during 1991-1994, the period during and after the Gulf War, virtually all from the U.S. It took delivery on \$800 million worth of arms during 1987-1990. [Ref.11: pp.56-57]

Reporting by the U.S. Defense Security Assistance Agency (DSAA) shows that Bahrain's annual arms imports from the U.S. have varied sharply by year. They did not surge as a result of the Gulf War, but have risen significantly in the mid-1990s as the result of Excess Defense Articles made available through the U.S. FY1995 and FY1996 security assistance programs. Bahrain obtains virtually all of its U.S. equipment through the FMS program and rarely buys from commercial markets. [Ref.1: p.91]

#### **4. Oman**

The size of Oman's arms imports have varied sharply by year, although they have consistently reflected the limit posed by Oman's economy. Oman's arms imports have never exceeded \$350 million per year, and this peak was reached in 1983, when the Iran-Iraq War seemed most likely to threaten Oman in the form of Iranian pressure. [Ref.1: p.171]

Oman imported a total of \$1.6 billion worth of arms during the period 1979-1994. The bulk of Oman's arms have come from Europe, many from Britain. Oman imported a total of \$565 million worth of arms during 1979-1983, with 80 million from France, \$430 million from the UK, \$10 million from Italy, \$5 million from China, and \$ 20 million from other countries. [Ref.10: p.134]

Arms Control and Disarmament Agency (ACDA) indicates that Oman imported a total of \$445 million worth of arms during 1985-1989, with \$30 million coming from the U.S., \$200 million from the UK, \$120 million coming from Germany, and \$5 million from other European countries. It indicates that Oman imported a total of only \$180 million worth of arms during 1992-1994, with \$20 million coming from the U.S., \$150 million from the UK, \$5 million from the Middle East, and \$5 million coming from other countries. [Ref.11: p.68]

Reporting by the DSAA shows that Oman has spent comparatively little on new FMS agreements, although they ordered \$67 million worth of FMS supplies in FY 1990. U.S. FMS deliveries reached \$42 million in FY1991, but otherwise were under \$10 million per year from FY1985-FY1995. Oman imported less than \$10 million a year of the U.S. arms between 1985-1995. [Ref.12: p.75]

## **5. Qatar**

Qatar imported a total of \$1.3 billion of worth of arms during the period 1979-1994. Many of Qatar's arms have come from France, although Qatar has bought arms from a wide range of countries. ACDA estimates that Qatar imported a total of \$765 million worth of arms during 1997-1983, with \$10 million from the U.S., \$440 million from France, \$310 million from the UK, and \$5 million from other countries. [Ref.10: p.134]

The data published by the DSAA shows that Qatar has never been a major importer of U.S. military equipment and the country did not place significant new orders as a result of the Gulf War. All U.S. sales to Qatar are cash transactions. [Ref.1: p.263]

## 6. United Arab Emirates

The broad trends in UAE military expenditures reflect its response to the threat Iran posed during the Iraq-Iran War followed by the threat Iraq posed during the Gulf War. The UAE increased its annual military expenditures from around \$822 million in 1987, to \$1.9-\$2.1 billion from 1981 through 1985. Defense spending dropped to around \$1.6 billion during 1986-1990, but climbed in 1991 in reaction to the Iraq invasion of Kuwait, peaking to \$4.9 billion. Military spending has since dropped to a little under \$2 billion a year. [Ref.1: p.346]

The UAE's total arms import during 1979-1983 totaled \$620 million. Roughly \$20 million came from the U.S., \$350 million came from France, \$90 million from the UK, \$110 million from Germany, \$30 million from Italy, and \$20 million from other countries. [Ref.1: p.347] Total arms import for the UAE during 1984-1988 totaled \$620 million, showed a shift towards imports from the U.S. Some \$20 million came from USSR; \$350 million came from the U.S., \$180 million from the UK, \$70 million from Germany, and \$30 million from other countries. [Ref.14: Table III]

The UAE shifted back to dependence on European suppliers before the Gulf War. ACDA estimates that the UAE signed a total of \$2.17 billion worth of new arms agreements during 1987-1991. With \$20 million coming from Russia, \$450 million from the U.S., \$1.4 billion from France, \$5 million from the UK, \$20 million from China, \$90 million from West Germany, \$60 million from other European countries, \$90 million from East Asian countries, \$20 million from Middle Eastern countries, and \$20 million from other countries. [Ref.14: Table III]

The UAE then shifted suppliers again after the Gulf War. ACDA estimates that the UAE took delivery on a total of \$995 million worth of new arms agreements during 1992-1994. With \$260 million coming from Russia, \$360 million from the U.S., \$110 million from France, \$10 million from other European countries, \$5 million from Middle Eastern countries, \$30 million from East Asian countries, and \$190 million from other countries. [Ref.15: Table III]

Reporting by the DSAA shows that the delivery of past UAE arms orders was accelerated during the Gulf War, and that the UAE signed significant new FMS sales agreements as a result of the Gulf War. It ordered \$492 million worth of arms in a FY1992, \$69 million worth in 1993, and \$227 million worth in 1994. This was only a limited portion of the UAE's total orders, however, and the UAE has placed comparatively few orders for commercial sales from the U.S. All U.S. sales to the UAE are cash transactions. [Ref.1: p.347]

## **G. PROBLEMS OF THE GCC STATES ARMS PROCUREMENT**

Though the GCC states have purchased large numbers of weapons, there are problems in the ways that the countries have acquired them: [Ref.16: p.11]

1. Emphasis on number of weapons and high prestige "glitter factor" buys of advanced weapons and technologies.
2. Sub-optimization on minor military specifications or advanced technologies for key weapons platforms over balanced and integrated arm buys.
3. National and service rivalries are given priority over standardization, integration, and the creation of a regional deterrent and war fighting capability.

4. Episodic "boom and bust" buys from different suppliers greatly complicate the problems of force expansion and conversion.
5. Maneuver capabilities, sustainability and maintenance, recovery and repair, and training are given far too little priority.
6. Cost analysis is lacking, or based on engineering cost estimates of procurement cost. Realistic life-cost analysis is almost non-existent.
7. A lack of long-term force planning and procurement planning leads to recurring efforts to over-expand force structures and equipment pools at a time when limited oil revenues and growing civil spending burdens make such plans unsustainable.
8. A "buy it and they will come" approach to obtaining trained and effective manpower.
9. Tendency to mix advanced weapons designed for aggressive joint operations with static tactical concepts divided by service and "stove piped" within individual services.
10. Sale-oriented suppliers with little strategic concern for the end result in terms of regional stability and deterrent/war fighting capability.

## **H. SUMMARY**

The six Arabian Gulf countries are still exposed to threats from Iraq and Iran. Because of the GCC, a threat to one member country is a threat to all six. The need for cooperation between the six countries is necessary especially after facing the Iraqi invasion of Kuwait at the beginning of this decade. It is easy to join the Arabian Gulf soldiers in one military because of similar culture, but interoperability will be difficult

because of the wide variety of weapon systems acquired from the numerous suppliers around the world.

Interoperability and standardization of weapon systems are vital issues in combining many different military organizations. The GCC states must coordinate among themselves before acquiring any new weapon system. The bilateral defense agreements between each GCC states with the U.S. leads to more dependence on U.S. equipment. The acquisition of weapon systems from one source will enhance the integration among the six countries.

Although some of the GCC states have depended on non-U.S. weapons in the last decade, sales to the six countries from the U.S. have increased especially after the Gulf War. Considering recent trends, the six countries plan to acquire more U.S. system in order to be more efficient. The success of the U.S. weapon systems in demand by the GCC states is a signal that the U.S. needs efficient security assistance processes to satisfy its security assistance customers. In the next Chapter, I will discuss the existing U.S. security assistance process with the individual GCC states. The advantages and the disadvantages of this process will be addressed.



### III. SECURITY ASSISTANCE

#### A. INTRODUCTION

Security assistance is a tool to serve the U.S. interests. By helping allies and friends to acquire and maintain the tools of war, the U.S. aids their self-defense. This assistance has high priority, especially in regions of the world where U.S. has vested national security concerns, such as the Arabian Gulf. Such help allows those countries to live in stable political and economic environments.

In President Reagan's FY1988 budget submitted to Congress, he included the general objectives and linkage between security assistance and U.S. foreign policy:

[Ref.17: p.7]

For more than forty years, security assistance has been an essential element of U.S. efforts to help build a more secure and peaceful world. Successive administrations, backed by bipartisan support in Congress, have recognized the indispensable role security assistance plays in the successful conduct of global foreign and defense policies. The U.S. commitment to an effective security assistance effort reflects two fundamental tenets of U.S. post World War II approach to national security and the protection of U.S. interest: a foreign policy based on global engagement and collective security, and a military strategy of deterrence and forward defense. Security assistance is an essential instrument in the implementation and integration of this twin pillars of our national policy. By helping friends and allies to acquire the means to defend themselves, the United States complements the rebuilding of its own military strength and increases the human and material resources available for defense of free world interests. [Ref.17: p.8]

Where regional instability exists around the world, security assistance has been used as a part to enhance the international relations. Whether motivated by economic

gains, or through the realization that a particular combatant is preferable to the other, security assistance attempts to establish and reinforce relationships that are beneficial to the country providing the aid. [Ref.17: p.8]

## **B. HISTORY OF THE U.S. SECURITY ASSISTANCE**

The first significant security assistance legislation was enacted in 1946. It authorized \$20 million to train and equip the armed forces of the Philippines. In exchange, the United States gained access to 23 air and naval bases in that country for 99 years. But 1947 marked the real beginning of the program. That year, President Truman issued a dramatic announcement that U.S. arm and advisors would be sent to Greece and Turkey to assist the resistance from communist insurgencies and threats. Toward this end, Congress enacted the Greek-Turkish Aid Act of 1947. [Ref.18: p.9]

Much more comprehensive legislation was passed in 1949. The Mutual Defense Assistance Act was a security complement to the Marshall Plan's economic aid to Western Europe. It created what was to become a central element of U.S. foreign aid, the Military Assistance Program (MAP). The Mutual Defense Assistance Act provided a statutory basis both for military aid to the new North Atlantic Treaty Organization and for cash Foreign Military Sales (FMS). It was followed by the Mutual Security Act of 1951, which consolidated the authorization for military and economic aid into one statute and established a Mutual Security Agency to administer the distribution of military and economic assistance. By authorization, the disbursement of economic assistance was made for the purpose of sustaining the military capabilities of friendly and allied nations. This legislation also created an early basis for what was to become the Economic Support

Fund (ESF) in fiscal year 1979. Moreover, the act consolidated several prior statutes authorizing military aid to Greece, Turkey, the Philippines, Iran, and South Korea under this one legal umbrella. [Ref.18: p.9]

Finally, in this early postwar period, the cornerstone of the Eisenhower administration's aid program was the Mutual Security Act of 1954. This act repealed all prior legislation. It authorized one of several foreigners to the ESF under the control of the Defense Support Program. The intent was to channel to friendly countries the commodities, services, and financial assistance designed to sustain military effort. The act also authorized the FMS credit program and allowed the extension of security assistance to U.S. alliance partners. [Ref.18: p.10]

In 1961, the entire foreign aid system was reorganized. Congress consolidated major aids programs, including FMS, Military Assistance Program (MAP) and security assistance for economic support, into the Foreign Assistance Act of 1961. The act created the Agency for International Development (AID) and re-authorized peacekeeping operations. For the first time, the 1961 act permitted the use of economic support funds for political purposes (instead of solely for sustaining military capabilities). All security assistance legislation since 1961 has been in the form of an amendment to the 1961 Foreign Assistance Act. As amended, the Foreign Assistance Act remains the principal legal foundation for U.S. foreign aid, including security assistance. [Ref.18: p.10]

The first major amendment to the 1961 legislation was the Foreign Military Sales Act of 1968, which provided separate authorization for the FMS cash and FMS credit programs. Congressional concern about the level and purpose of arms transfers was

clearly manifested by the mid-1970s. The Foreign Assistance Act mandated a reduction in the role of the U.S. government, in the furnishing of defense articles and defense services to foreign countries, and a return to commercial channels. Foreign Aid Legislation in 1974 forbade the use of security assistance to train police in foreign countries. It also contained the Nelson Amendment, requiring that Congress be notified before the president offered to sell defense articles or services worth \$25 million or more. Under this provision, Congress could, within 20 days of receiving such notification, pass a concurrent resolution overriding the proposed sale unless the president declared that an emergency existed. [Ref.18: p.10]

Amid continuing concern about the utility of arms sales and military assistance generally, Congress passed the International Security and Arms Export Control Act of 1976. The Arms Export Control Act (AECA) again consolidated the laws governing U.S. arms sales. It covered both cash and credit sales and sales by both the U.S. government and private commercial contractors. The AECA separated the International Military Education and Training (IMET) program from the larger MAP program and mandated a phase-out of the latter. Section 104 of the act also extended into the time under the Nelson Amendment, in which Congress could disapprove an arms sale within 20 to 30 days. Finally, while allowing for exceptions, section 502(b) incorporated a strong human rights provision. [Ref 18: p.10]

The AECA represented a sweeping revision of those articles of the Foreign Assistance Act of 1961 governing arms transfers, and it superseded, outright, the Foreign Military Sales Act. However, while there is considerable sentiment for changing the

present statutory framework, the Foreign Assistance Act and the AECA continue to guide the security program. Despite calls for wide-ranging reform during the Bush and first Clinton administrations, the program was revised only marginally. [Ref.18: p.11]

In early 1994, the Clinton Administration submitted to Congress a draft to replace the Foreign Assistance Act, cited as H.R.3765, "the peace, prosperity, and democracy act of 1994." The importance of alliances and coalitions remains evident given the language in Sections 3301 and 3302 of the bill: [Ref.19: p.9]

In order to stem incipient regional conflicts worldwide, the United States sees great value in maintaining alliances, coalitions and other cooperative defense relationships that permit more effective collective defense efforts. The United States will provide assistance to enhance the ability of countries worldwide willing to share the burden of contributing to regional alliances, coalition operations, and other collective security efforts to counter threats to and maintain international peace and security. [Ref. 20: p.54]

The pursuit of interoperability of weaponry is fast becoming the Clinton administration's most prevalent rationale for continuing widespread arms exports. Interoperability is a hallmark of coalition warfare, which the United States built up during the Cold War. [Ref.21: p.5]

### **C. SECURITY ASSISTANCE LEGISLATION**

The transfer of military assistance to eligible foreign countries under authorizing legislation is called security assistance.

1. Security assistance is defined as, "a group of programs which authorize the United States to provide defense articles, military training, and other defense-related services, by grant and by credit or cash sales, in furtherance of U.S. national policies

and objectives." These programs are authorized by the Foreign Assistance Act of 1961, as amended, and the Arms Export Control Act of 1976, as amended.

2. The term security assistance is comprehensive and encompasses support in the form of design and development, acquisition, storage, transportation, distribution, maintenance, evacuation, and disposition of materiel. It includes the provision of whether the logistics support is rendered on a reimbursable or non-reimbursable basis.
3. A variety of means is employed in planning, developing, and administering security assistance support to eligible countries. Current legislation continues to grant to the President the general authority for providing security assistance. It authorizes him to acquire defense articles and services from any source and to provide this support by grant, loan, or sale. The actual provision of defense materiel, services, and training is administered under one of the following security assistance programs: [Ref.22: p.121]

- Foreign Military Sales (FMS) and Foreign Military Construction Sales Program
- Foreign Military Financing Program
- Direct Commercial Sales (DCS) licensed under the AECA
- Military Assistance Program (MAP)
- International Military Education and Training (IMET) program
- Economic Support Fund
- Peacekeeping Operations (PKO)

For the purpose of this research, the following components will be defined as follows: [Ref.17: p.15]

### **1. Foreign Military Sales (FMS)**

FMS is a non-appropriated program through which eligible foreign governments purchase defense articles, services, and training from the United States Government. The

purchasing government pays all costs that may be associated with a sale. In essence, there is a signed government-to-government agreement, normally documented on a Letter of Request (LOR) and Acceptance (LOA) between the U.S. Government and a foreign government. Each LOA is commonly referred to as a "case" and is assigned a unique case identifier for accounting purposes. Under FMS, military articles and services, including training, may be provided from DoD stocks or from new procurement. If the source of supply is new procurement, on the basis of having a LOA which has been accepted by the foreign government, the U.S. Government agency or military department assigned cognizance for this case is authorized to enter into a subsequent contractual arrangement with the U.S. industry in order to provide the article or service requested.

[Ref.22: p.41]

## **2. Direct Commercial Sales (DCS) licensed under the AECA**

A commercial sale licensed under the AECA is a sale made by U.S. industry directly to a foreign buyer. Unlike procedures employed for FMS, the commercial sale transaction is not administrated by DoD and does not involve a government-to-government agreement. The U.S. Government control procedure is accomplished through licensing by the Office of Munitions Control, Department of State. Day-to-day rules and procedures for these types of sales are in the International Traffic in Arms Regulations (ITAR). [Ref.22: p.43]

With few exceptions, such as sales, which directly affect DoD production schedules or U.S. security, the U.S. is neutral concerning country acquisition of articles or services under FMS or through direct commercial contracts. DoD restricts release of

data, which competes with U.S. private firms. The role of the U.S. Government in direct commercial contracts is normally limited to export controls. [Ref.17: p.8]

In general, government-to-government purchase agreements tend to ensure standardization with items in use by U.S. forces, provide contract administration services which may not be readily available otherwise, and help lower costs by consolidating FMS buys with U.S. purchases. Commercial purchases allow the purchaser more direct interface during contract negotiation, may use firm-fixed prices, and may have a better capability to tailor the items to a particular need. [Ref.17: p.9]

#### **D. U.S. GOVERNMENT ORGANIZATION FOR SECURITY ASSISTANCE**

The U.S. security assistance program was created by U.S. public law. While the administration of security assistance is vested in the Executive Branch, the Congress, by virtue of Article 1, Section I of the U.S. Constitution (which gives it all legislative power), exerts influence in several ways: [Ref.19: p.16]

1. Development, consideration and action on legislation to establish or amend basic security assistance authorization acts.
2. Enactment of appropriation acts.
3. Passage of joint resolutions in the form of a Continuing Resolution Authority (CRA) to permit the incurrence of obligations to carry on essential security assistance program activities until appropriation action is complete.
4. Hearings and investigations into special areas of interest, to include instructions to the General Accounting Office (GAO), the Congressional Budget Office (CBO), and Congressional Research Service (CRS) to accomplish special reviews.

5. Ratification of treaties, which may have security assistance implications.

Additionally, Congress is assigned power by Article I, Section 8 of the Constitution to regulate commerce with foreign nations, while Article IV, Section 3 indicates that the "Congress shall have power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States."

Congress performs these responsibilities through its committees of both Houses of Congress. The primary committees of Congress involved with security assistance legislation are: [Ref.17: p.17]

1. Authorizations:

- House of Representatives, Committee on National Security, Committee on Foreign Affairs
- Senate, Committee on Armed Services, Committee on Foreign Relations

2. Appropriations

- House of Representatives, Committee on Appropriations (Subcommittees on Foreign Operations and Defense).
- Senate Committee on Appropriations (Subcommittees on Foreign Operations and Defense).

The Executive Branch's organizational structure is far more diverse. The management of security assistance encompasses the Department of States, Treasury, Commerce, Defense, the Unified Commanders and the military departments. The Department of Treasury and Commerce exercise authority over security assistance programs through their control measures to include export clearance and critical commodity controls. The key players, however, are the State Department and DoD.

Figure 1 provides a depiction of the U.S. Government organization for security assistance. [Ref.17: p.18]

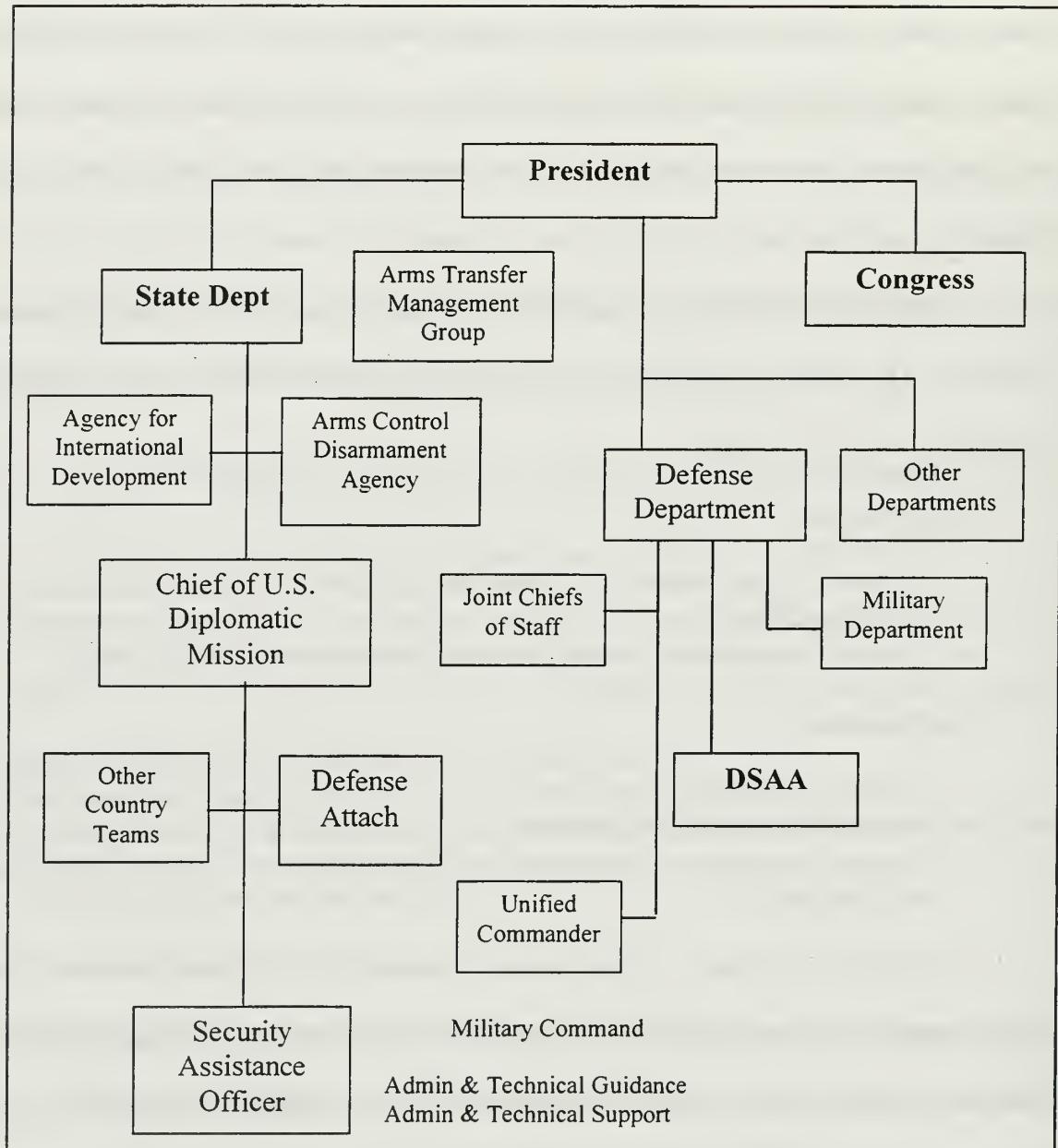


Figure 1. Security Assistance Organizational Structure

## E. FOREIGN MILITARY SALES PROCESS

The focus of the security assistance program with any country is the cohesion of the U.S. and the foreign purchaser's policy objectives. Any assistance provided by the U.S. must not only strengthen the recipient country's objectives, but also more importantly, strengthen U.S. national security and promote world peace. The commonality of objectives represents the first litmus test potential foreign military sales must pass. Based on the nature of the request, the military department having cognizance over the defense article or service will normally receive a Letter of Request (LOR) from the foreign country through U.S. diplomatic channels. Figure 2 shows the channel for submissions of LORs. [Ref.17: pp.20, 21]

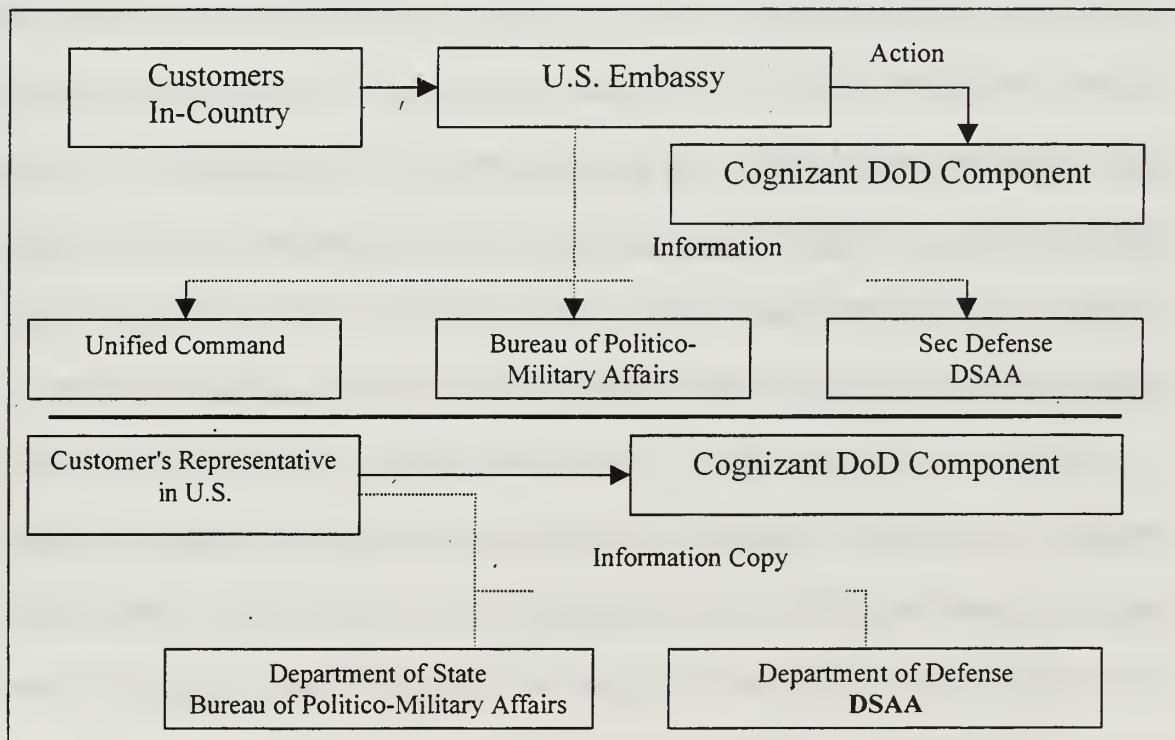


Figure 2. Channel for Submissions of LORs

Once the military department has received the LOR, the request must be validated to ensure that the potential customer is an eligible FMS recipient, that the article or service sought may be sold and that the request has been received through proper channels. The DSAA maintains a Military Articles and Services List (MASL) which identifies the military articles and service eligible for FMS. If the item requested is not on the MASL, a policy level decision must be made.

Provided the LOR has cleared the initial screening, the military department will draft a Letter of Offer and Acceptance (LOA) which will in turn be reviewed by the DSAA and initial approval provided by the Department of State. During the Department of State's review of the LOA, Congress can also be notified of the impending sale. Although not a statutory requirement, it provides Congress with a 20-calendar day advance notification to allow for preliminary congressional examination. Once the 20 days period has expired, DSAA submits the formal 30-day notification to Congress required by the Arms Export Control Act. The onus is upon Congress to act if it objects to the LOA. If Congress fails to object to the proposed sale within 30 days, the DSAA submits the LOA to the requesting government for its review and acceptance/rejection.

The means by which the U.S. Government fulfills its obligations of the FMS programs vary according to the article or service requested. In the instance of military articles, the requested item can be provided from military surplus or government stocks. For procurement items from new production, the FMS requirements may be consolidated with DoD requirements or contracted separately. [Ref.21: pp.21-22]

## F. THE ROLE OF CONGRESS

Congress plays a powerful role in U.S. security assistance by providing funding, writing laws and attaching restrictive language to funding. Most terms and conditions of letters of offer and acceptance (LOA), the basic contract documents of FMS agreements, come directly from language in the AECA. According to this act, the Executive Branch must notify Congress of all sales over \$50 million and all sales of major defense equipment (MDE) over \$14 million. This notification (referred to as a 36b notification after the section of the law requiring it) is formally forwarded to the Congress 30 days before the LOA is offered in the case of a Persian (Arabian) Gulf country. (Most Third World nations are under the same regulation). DSAA also forwards an informal classified notice 20 days before the formal notice. Thus, Congress has 50 days to consider a major sale. [Ref.23: p.159]

The vast majority of cases go through the congressional notification process without comment. The Middle East/Arabian Gulf region, however, is an area containing more than its share of controversy. The U.S. Congress cited the four objectives held by all U.S. presidents since World War II. One of these objectives, the security of Israel, has presented the Executive Branch with a seemingly intractable series of problems for security assistance relations with other nations in the region. Generally, both Houses of Congress have been extremely wary of the sales of lethal technology to Arab nations that have not signed a formal peace treaty with Israel. In recent times, "contributions to the Peace Process" serves as a measure to determine whether or not Arab nations may be sold additional military hardware. [Ref.23: p.159]

## **G. ARMS TRANSFER AS STABILIZERS**

According to its new conventional arms transfer policy, the Clinton Administration believes U.S. arms exports promote regional stability by creating balances of power and building up the deterrent capabilities of U.S. friends and allies. Undoubtedly, the ability to create regional balances is facilitated by the fact that the United States is arming both sides in many cases. [Ref.19: p.6]

Whether weapons maintain peace and security or undermine them will never be proven. However, given the high degree of geopolitical flux today, predicting regime stability and the steadfastness of alliances is speculation at best. A bill pending in Congress would attempt to keep the U.S. from making potentially disastrous exports by identifying characteristics of less stable governments. Under the so-called "Code of Conduct" legislation, the four conditions a country must meet to be eligible for U.S. weapons are: a democratic form of government; respect for the basic human rights of its citizens; non-aggression against other states; and full participation in the United Nations Register of Conventional Arms. The president may exempt a country, which fails to meet these criteria. [Ref.19: p.6]

## **H. MORE BENEFITS OF SECURITY ASSISTANCE**

Since it was implemented as a U.S. strategy for foreign policy, security assistance has served the U.S. and its allies as well. We can summarize those benefits as follow:

1. As the lone military superpower and a world leader, the U.S. is committed to maintaining strong allies who share common military equipment, doctrine, and

capabilities. This policy is articulated in the U.S. security strategy, which states that:

[Ref.19: p.12]

Through training programs, combined exercises, military contacts, interoperability and shared defense with potential coalition partners, as well as security assistance programs that include judicious foreign military sales, we can strengthen the self-defense capabilities of our friends and allies.

2. The sale of equipment to eligible countries gives the U.S. the opportunity to access and influence within the recipient countries and their respective regions. Also, the U.S. defense industry receives some limited business through the sales of support equipment, logistical support, training and upgrade kits. [Ref.19: p.12]
3. Another benefit of security assistance program is the reduction in the overseas presence of U.S. forces. Once armed with state-of-art military equipment and training, U.S. allies and partners are more capable of holding an adversary in place while the U.S. deploys its forces to the crisis area. Additionally, common military and support equipment within a host country greatly reduces the strategic lift requirement of the U.S. in the early days of a crisis. This de facto forward presence assists in protecting U.S. vital interests abroad as the military reduces its force structure.

[Ref.19: p.16]

4. U.S. officials say sales foster good relations with other military forces, enable those countries to defend themselves better, and reduce the price of U.S. weapons by spreading the cost over bigger production runs. A key element of the national security strategy of engagement and enlargement is to bolster America's economic revitalization. This effort is "premised on a belief that the line between the U.S.

domestic and foreign policies has increasingly disappeared, that the U.S. must revitalize its economy if it is to sustain its military forces, foreign initiatives and global influences, and that the U.S. must engage actively abroad if we are to open foreign markets and create jobs for the American people." Shortly after President Clinton took office, the State Department told U.S. embassies to push arms deals as if they were agricultural or pharmaceutical exports. Commerce Secretary Ron Brown told U.S. weapons makers in 1993: [Ref 19: p.17]

We will work with you to help you find buyers for your products in the world marketplace, and then we will help you close the deal.

That early direction is now formalized as the U.S. conventional arms transfer policy.

## **I. FOREIGN EXPORT AND DEFENSE INDUSTRY**

Since the beginning of the defense down-sizing, the U.S. has cancelled or curtailed many of its own procurement initiatives, forcing defense industries to lay off workers, while others abandon the defense business altogether. Several major defense contractors have taken advantage of government funding to make the transition from defense products to commercial products, while others have consolidated to remain viable. General Dynamics sold its fighter aircraft division to Lockheed; Northrop bought out the financially strapped Grumman Aircraft; and Lockheed and Martin-Marietta have merged. Boeing has merged with McDonnell-Douglas. These are significant events, since these mergers and conglomerates greatly reduce the number of vendors qualified to produce aircraft, especially fighter aircraft, for the Department of Defense. As the production base

grows smaller, the competition becomes less, eventually resulting in an overall increase in price for the purchaser, due to simple supply and demand economics. [Ref.19: p.18]

To maintain the U.S. technological superiority, many feel that the critical skills in the defense industrial base must be preserved. Since the U.S. is not buying, defense industries must sell overseas to maintain technical know-how and jobs. Former Secretary of Defense William Perry outlined seven initiatives to maintain the U.S. defense industrial base and those critical skills. In one of his initiatives he said: "The government will assist U.S. companies in exporting their products across the world." The Government's new conventional arms transfer policy specifically addresses this point. In addition, the DoD can once again directly support international air shows on behalf of U.S. defense contractors. [Ref.24: p.22]

The reality today is that many U.S. weapons now in production, including most state-of-the-art F-15 and F-16 fighters, M1A2 tanks, AH-64 helicopter gun and ships, are bound for foreign customers, not the Pentagon. Presently, there are only two major defense contractors producing fighter aircraft in the U.S.: Lockheed and Boeing/McDonnell-Douglas. Foreign military sales are the only sales keeping these two contractors in the fighter business. The same case applies to the M1A2 tank; General Dynamics had been producing the tank just for Saudi Arabia and Kuwait during the period 1993-1994. Since those production lines are still working, the opportunity exists for the DoD to restart new production without exorbitant start-up costs. [Ref.19: p.21]

Keeping multiple defense contractors solvent and selling new production equipment over less modern equipment to the U.S. partners and allies is important to the U.S. for several reasons: [Ref.19: p.22]

1. The first is competition. Multiple contractors encourage competition, which in turn yields the lowest price for an item. The other aspect of competition is from international defense contractors. The U.S. partners and allies want and need modern equipment. If they don't get it from the U.S., they will get it from somewhere else.
2. The second reason is for economies-of-scale contracting, or spreading the cost over bigger production runs. The more you buy, the less each item costs.
3. The third reason is the compatibility and burden sharing. Common equipment between the U.S. and its allies allows them to work hand-in-hand without being totally dependent on any one state. In addition, commonality allows the U.S. and other allied nations, to travel to the crisis area faster and lighter. It is not necessary to show up with a lot of support equipment or spare parts, since the host country has an established supply and repair system for common systems.

#### **J. OFFSET**

An offset is defined as the agreement between a foreign country and U.S. defense company, which is in contrast to the traditional foreign government to U.S. Government relationship associated with FMS. The seller is compelled by the buyer to enter into a compensating or reciprocal relationship. This condition is referred to as counter-trade for civilian goods, but when the sale is of a military nature, offset is the accepted term.

An offset is a range of industrial or commercial compensations required as a condition of purchase in either government to government or commercial sales of defense article and/or defense services as defined by the Arm Export Control Act (AECA) and the International Traffic in Arms Regulations (ITAR). The different types of offsets are: [Ref.23: p.26]

1. **Co-production.** Overseas production based upon a government-to-government agreement that permits a foreign government or producer(s) to acquire the technical information to manufacture all or part of an U.S. origin defense article.
2. **Licensed Production.** Overseas production of an U.S. origin defense article based on transfer of technical information under direct commercial arrangement between an U.S. manufacturer and a foreign government or producer.
3. **Subcontractor production.** Overseas production of a part or components of an U.S. origin defense article.
4. **Overseas investment.** Investment arising from the offset agreement, taking the form of capital invested to establish or expand a subsidiary or joint venture in the foreign country.
5. **Technology Transfer.** Transfer of technology that occurs as a result of an offset agreement which may take the form of research and development conducted abroad, technical assistance or other activities under direct commercial agreement between the U.S. manufacturer and a foreign entity.

6. **Counter trade.** An agreement involving the reciprocal purchase of civil or defense goods and services from the foreign entity as a condition of sale of military-related export.
7. **Counter-purchase.** An agreement by the initial export to buy (or find a buyer for) a specified value of unrelated goods from the original importer during a specified time period.
8. **Compensation.** An agreement by the original export to accept as full or partial repayment goods derived from the original exported product (e.g., turnkey factory, machinery or equipment used to produce military articles). Agreements for repayment in related goods are often referred to as "buy-backs." [Ref17: p.26]

Within the arms industry, offsets associated with military exports are frequently divided into direct and indirect classes: [Ref.22: p.409]

1. **Direct Offsets.** A form of compensation to a purchaser involving goods which are directly related to the item being purchased. As an example, as a condition of U.S. sale (FMS or DSC) to foreign purchaser, the U.S. contractor may agree to permit the purchaser to produce in its country certain components or subsystems of the weapon system the country is purchasing. Normally, direct offsets must be effected within a specified period. [Ref.22: p.409]
2. **Indirect Offsets.** A form of compensation to a purchaser involving goods which are unrelated to the item being purchased. As an example, as a condition of U.S. sales (FMS or DSC), the contractor may agree to purchase certain of customer country's

manufactured product, agricultural commodities, raw materials, or services. Indirect offset may be accomplished over an extended, open-ended period. [Ref.22: p.409]

## **K. OFFSETS AND APPLICATIONS**

In the 1950s, in addition to supplying the European and Japanese militaries with the U.S. equipment, the U.S. started to rebuild its allies' arms industries through licensed production and co-development of weapon systems. In 1970s, as the allies began to shoulder more of the cost, they began to exact a fee for access to their markets. Offset agreements allowed buyers to tell their citizens about all the non-defense advantages they got when they purchased weapons from abroad: new technologies, jobs, investment, a foothold in a new market. Camouflaging top-dollar weapons purchases with side deals "makes the monetary outlays on military equipment appear lower than they actually are and therefore more acceptable to both politicians and the public," according to OMB. [Ref.23: p.2]

Prime contractors have been willing to play along. With offset agreements, their products can be sold at high prices. The real losers are the subcontractors who lose business to producer in recipient countries, and companies in unrelated industries who must compete with the foreign items defense contractors agree to sell in the U.S.

In the late 1970s and 1980s, many developing nations began to follow the industrialized countries' lead and routinely required that some raw percentages of their arms purchase be reinvested in their own economies through offsets. Some Congressional observers describe today's offsets as a massive foreign aid program being run by defense

contractors. Kuwait, Saudi Arabia, UAE, South Korea and Turkey have established offset "guidelines" for arms imports. [Ref.23: p2]

## **L. OFFSET POLICY IN THE GCC STATES**

The types of offsets required by a country depend on its program goals, its economy, and whether it is developed, newly industrialized, or less industrialized. Companies undertake a broad array of activities to meet these offset obligations.

A country's offset requirement policy outlines the types of offset projects sought by that country. These requirements include the amount of offset required (expressed as a percentage of the purchase price); what projects are eligible for offset credit; how these projects are valued (e.g., offering multipliers for calculating credit for highly desired projects); nonperformance penalties; and performance periods.

Countries with less industrialized economies, such as Kuwait, Saudi Arabia, and the UAE, generally pursue indirect offsets to help create profitable businesses and build their country's infrastructure. These countries usually do not pursue direct offsets because they have limited defense and other advanced technology industries. [Ref.24: p.4]

### **1. Kuwait**

In 1992, Kuwait began requiring offsets for all defense purchases over \$3 million. Kuwait pursues offsets that will generate wealth and stimulate the local economy through joint ventures and other investments in the country's infrastructure.

The Kuwaiti Government calls for U.S. contractors to propose investment projects, and then manage and design the projects selected by the Kuwaiti Government. The

agreements required offsets equal to 30 percent of the contract values as stated in Kuwait's offset policy. U.S. companies have had limited experience with Kuwait's offset program to date, but generally consider it manageable. [Ref.24: p.23]

## **2. Saudia Arabia**

Saudia Arabia has intermittently required offsets since the mid-1980s. Officials at one company observed that Saudia Arabia has recently pursued "best effort" agreements with U.S. defense contractors, rather than formal offset agreements. Saudia Arabia uses its offset policy to broaden its economic base and provide employment and investment opportunities for its citizens.

The offset agreements are informal with no set offset percentage, although officials at one company estimated their arrangement was equivalent to a 35 percent offset agreement. The agreements include a requirement that companies enter into joint ventures with local companies to implement offset activities. The offset activities consist of defense and non-defense-related projects. In some instances, the offset projects include local production of parts or components for the weapon system being purchased. However, these represent small portions of the overall offset projects. The Saudia government agreed to pay price differentials to make Saudia manufacturers price competitive. The agreements do not include explicit multipliers, but some agreements grant credits for technology transfers at the cost Saudia Arabia would have incurred to develop the technology.

Companies commented that Saudia Arabia wants to establish strategic partnerships and long-term relationships with its suppliers and that the Saudia government has been

fairly flexible in negotiating offset agreements. The following is an example of offset agreement between Saudi Arabia and different U.S. industries:

- General Dynamics and McDonnell-Douglas contracted with companies in Saudi Arabia to satisfy offset obligations from several weapons sales. In one case, a Saudi firm will manufacture circuit boards for tanks, while in another instance, a Saudi company will manufacture components for F-15 fighter aircraft. (Countertrade Outlook, Vol. XIII, No. 6, Mar. 27, 1995, p. 5.) [Ref.24: pp.32-34]

### **3. United Arab Emirates**

The United Arab Emirates first instituted its offset policy in 1990. In 1993, it issued new requirements granting offset credit only for the profits generated by offset projects. The policy requires a 60 percent offset on all contracts valued at \$10 million or more. The United Arab Emirates uses offsets to generate wealth and diversify its economy by establishing profitable business ventures between foreign contractors and local entrepreneurs.

The United Arab Emirates is interested in a wide range of non-defense-related offset projects. Company officials generally questioned the feasibility of the United Arab Emirates' current offset requirements. They said only a small number of viable investment opportunities exist and such projects take several years to generate profits.

The following are some offset agreements between the UAE and different industries:

- The agreements with the United Arab Emirates required that 60 percent of the sale be offset through non-defense-related investment projects and granted multipliers for various types of investment projects.
- Several French firms have established manufacturing facilities or other investments in the United Arab Emirates to satisfy offset obligations. For example, Thomson-CSF started a garment manufacturing enterprise in Abu Dhabi in connection with a contract for tactical transceivers and audio systems. Giat Industries created an engineering company specializing in air conditioning as part of its offset commitment for the United Arab Emirates'

purchase of battle tanks. (Countertrade Outlook, Vol. XIII, No. 8, Apr. 24, 1995, pp.3-4.)

- McDonnell-Douglas Helicopter Company entered into several joint ventures with firms in the United Arab Emirates to satisfy offset commitments for the sale of AH-64 Apache helicopters. Projects included forming a company to manufacture a product that cleans up oil spills and creating another firm that will recycle used photocopier and laser computer printer cartridges. The defense contractor is also paying for an U.S. law firm to draft the country's environmental laws. (Countertrade Outlook, Vol. XIII, No. 2, Jan. 23, 1995, pp. 2-3.)
- The United Arab Emirates is working with Chase Manhattan to establish an offshore investment fund to provide international contractors doing business in the country the opportunity to satisfy part of their offset obligations. (Countertrade Outlook, Vol. XIII, No. 2, Jan. 23, 1995, p. 1.) [Ref.24: pp.34-35]

From the previous review, the following points can summarize the offset agreements between the GCC states and different defense industries:

1. The three main countries that have practiced offsets are Saudi Arabia, Kuwait, and UAE. Those three countries have led the other three countries, Bahrain, Oman, and Qatar, in the arms trade.
2. The offset projects sought by the three countries have been limited to civilian sector except for Saudi Arabia, in some instances. Saudi Arabia has started manufacturing some parts for tanks and fighters.
3. It is well known that Saudi Arabia, Kuwait, and UAE have problems with native labor availability/capability to operate the proposed industry. The three countries have rejected some proposals from different defense industries because it requires foreign laborers to work in those projects. However, Bahrain and Oman have sufficient labor to operate such proposed firms. Unfortunately, the coordination

between the six countries in this field is weak. Also, the facilities to initiate specific industries in some GCC states are better than others.

## M. SUMMARY

This chapter started with the history of the U.S. security assistance from the beginning until today. It has shown the evolution of the security assistance objectives and how they relate to the U.S. national security objectives. Then, the chapter illustrated how countries can acquire military equipment and services through the procedure of the security assistance by different methods. Some of the benefits, either to the U.S. or its allies, of the security assistance are then listed. As the defense procurement decreases around the world, this will definitely affect the defense industry in the U.S. This chapter discussed the impact of resulting defense downsizing on the defense industry. Offset is defined with its different types of applications and the offset policy in some GCC states has discussed. However, the security assistance program, with its extensive application and history, has some disadvantages that have made valuable customers to complain on its implementation. The next chapter will deal with some of those problems from the GCC states perspective, and how the security assistance program process and implication could be improved to attract those countries and others to buy more weapon from the U.S.

## IV. FUTURE GCC DEFENSE ACQUISITIONS

### A. INTRODUCTION

The slump in oil prices will probably hit hardest the military procurement agreement programs of the six GCC states. Kuwait, Saudi Arabia and the UAE, which have for decades depended on U.S., UK and French equipment, are again facing shortages in funds after the recent collapse in oil prices. This occurred just as they were coming out of the economic difficulties they experienced after the earlier oil price falls and the \$60 billion cost of the 1990-1991 Gulf War. Therefore, major military orders will probably be halted until the economic situation improves.

Along with economic collapse in Asia, on which Gulf oil producers have increasingly focused their export, the GCC states' difficulties present manifold problems for defense contractors. The pending contracts with GCC members include: [Ref. 27: p.30]

- A Saudi Arabian requirement for up to 100 advanced fighters' aircraft, possibly F-16Ds, to replace its aging F-5s, and 350 to 400 more U.S. M1A2 MBT.
- Up to 80 advanced combat aircraft for the UAE worth as much as \$6 billion
- A complete command, control, communications and intelligence (C3I) worth around \$1.2 billion for Kuwait.

The GCC states, of course, still rely on the U.S. and its allies to protect them from any future threats. While this is unlikely to end in the near future, the relationship between the U.S. and the six GCC states is somewhat more fragile than it was. With the existing threats from Iran and Iraq, the GCC must look for a solution other than dependence on their Gulf War allies. When oil is depleted, or its price decreased, the U.S.

and the West will not have the same interest to fight for that resource, but Iran will still have its intent to annex the small states in the Gulf. Iran's greed is not focused on getting the Gulf oil, but rather to expand its revolution to include its neighbors. Iraq still has the power to invade Kuwait, maintaining a potential capability of over 2,500 tanks, 4,400 armored vehicles, 1,000 artillery pieces, 120 attack helicopters, and 300 aircraft, which is sufficient to re-invade Kuwait and Saudi Arabia. Iraq may be waiting for the opportunity to take revenge on the Gulf states, which helped the U.S. to destroy its power after the Gulf War. [Ref.27: p.32]

The big lesson to be learned from the Gulf War is that the six GCC states cannot, with their current military organization, defend themselves from any aggression from either Iraq or Iran. The future military strategy for the six countries must be based on building a permanent force that combines the existing six forces into one cohesive military unit. They must ensure their security through building their own collective defense, enhancing and developing the military capabilities of the existing Peninsula Shield Force established in 1985. This will not only ensure immediate military response but will provide a much-needed deterrent to potential aggressors.

## **B. BUILDING A COLLECTIVE FORCE**

The effectiveness of any military force depends on two key issues: manpower and arms. For the purpose of this research, only the arms side will be discussed. The type of weapon to be procured is very important for countries with low populations, like those of the GCC states. In order to compensate for the low population, technologically advanced weapons must be acquired. These types of weapons are expensive to acquire and

maintain. Therefore, any procurement must be efficient, especially in the era of low oil prices. In this case, efficiency means to consolidate the acquisition of the six countries in a system that fulfills the mission with lower costs. [Ref.28: p.12]

Most GCC states need to stop making political and "glitter factor" procurements. They need to steadily increase their number of common suppliers for major weapons types. The GCC states need to focus on procuring interoperable, standardized equipment which would provide the capability to perform the following missions: [Ref.28: p.13]

1. Heavy armor, artillery, attack helicopters, and mobile air defense equipment for defense of the upper Gulf
2. Interoperable and standardization with U.S. power projection force
3. Interoperable offensive air capability with stand-off, all-weather precision weapons and anti-armor/anti-ship capability
4. Interoperability air defense equipment, including heavy surface-air missiles, beyond-visual-range/all-weather fighters, airborne early warning and surveillance capability, anti-radiation missile and electronic countermeasures capability

### **C. PRIMARY FOREIGN ARMS SOURCES**

From 1990 onward, the Third World arms market has been comprised of three general tiers of suppliers. In the first tier is the United States, whose positions far surpass that of any other arms suppliers to the Third World. In the second tier are France, the United Kingdom and Russia. Their positions are notably below that of the U.S., but distinctly above the positions of the remaining arms suppliers to the Third World. The four nations in the first two tiers have historically had the means to supply the most

advanced weapon systems to the Third World in quantity and on a continuing basis. But as the competition for a declining Third World arms market increases, the European suppliers may have difficulty sustaining the market shares they held in past. On the third tier are China, other European suppliers, and other non-European suppliers, countries that have generally been marginal or sporadic participants in the Third World arms trade. The names of countries in this third tier are likely to change over time, especially at its lower end, since some of these nations lack the means to be major suppliers of advanced military equipment on a sustained basis. Some of them, however, are capable of having an impact on potential conflicts within Third World regions because of their willingness to supply weapons based almost exclusively on commercial considerations, including types of weapons that other suppliers would refuse to provide.

While this thesis focused on the U.S. to GCC arms trade, the U.S. is by no means the only source for effective weapon systems. In the following paragraphs, the primary weapons suppliers will be reviewed as some of the possible competitors for producing weapons to the GCC (Extracted from an unclassified report of conventional arms transfer to developing nations as published by Library of Congress on 13 August 1997): [Ref.29: pp.48-51]

## **1. Russia**

Due to domestic economic problems it has encountered in recent years, as well as the Cold War's end, Russia has terminated its grant military assistance program with most of its arms clients in the Third World. At the same time, Russia has sought arms deals with countries such as Iran that can pay for weapons in hard currency. These

developments, and Russia's loss of Iraq as a major arms purchaser, are major factors that explain why the overall values of Russia arms transfer agreement have dropped significantly most recently.

Yet, Russia has confronted significant difficulties in making profits from conventional weapons. Most of Russia's previous arms customers are either under sanctions or too poor to invest in weaponry. The majority of potential cash-paying arms purchasers have been long-standing customers of the U.S. or major European suppliers. Even in an era of heightened competition, these nations are not likely to replace their weapons inventories with unfamiliar, non-Western armaments when newer versions of existing equipment are readily available from traditional suppliers. Some of Russia's former arms clients in the developing world continue to express interest in obtaining additional weapons from Russia, but have been restricted by a lack of funds to pay for armaments. Russia's difficult transition from the state-supported and controlled industrial model of the former Soviet Union has also led some prospective arms customers to question whether Russian defense contractors can be reliable suppliers of spare parts and support services needed to maintain weapons systems they sell.

Nonetheless, Russia has made significant efforts to gain arms agreements with developing nations that can pay cash for their purchases. The figures since 1993 suggest that Russia has had some recent success in cash-based transactions. In the post-Cold War era, Russia's principal arms clients have been China and Iran. Russia has also made smaller arms deals with Kuwait and the United Arab Emirates for armored fighting vehicles and Malaysia for MiG-29 fighter aircraft. Iran, primarily due to its own

economic problems, recently has ceased to be a major purchaser of arms from Russia. At the turn of the decade, Iran was a primary purchaser of Russian armaments, receiving such items as MiG-29 fighter aircraft, Su-24 fighter-bombers, T-72 tanks, and Kilo class attack submarines.

In 1996, Russia's most notable arms deal was with India. Russia sold this traditional client 40 new Su-30 fighter aircraft, which made India the developing nation with the largest arms agreement total for that year. Russia has continued to maintain a relationship with a more recently acquired arms client, China. This arm supplying relationship with China began maturing in 1994. By 1996, Russia had sold China at least 72 Su-27 fighter aircraft, as well as four Kilo class attack submarines. A licensing agreement had also been finalized between Russia and China, permitting China to co-produce as many as 200 Su-27 aircraft [Ref.29: p.49]

## **2. Major West European suppliers**

The four major West European suppliers are France, United Kingdom, Germany and Italy. The group registered a decrease in its collective share of all arms transfer agreements with developing nations between 1995 and 1996. This group's share fell from 23.1 percent in 1995 to about 18.1 percent in 1996. The collective value of this group's arms transfer agreements with developing nations in 1996 was \$3.5 billion, compared with a total of nearly \$4 billion in 1995. Of these four, the United Kingdom was the principal supplier with \$1.8 billion in agreements, increasing from \$409 million in 1995. France registered a notable decline in arms agreements from \$2.5 billion in 1995 to \$1.3 billion in 1996. Italy also registered a decline from over \$800 million in 1995 to \$300

million in 1996. In 1995, Germany's agreements with developing nations were over \$300 million, but in 1996 had fallen to \$100 million.

As a group, the major West European suppliers averaged 21.9 percent of all arms transfer agreements with developing nations during the period from 1989-1996. Since the end of the Cold War, the major West European suppliers have generally maintained a notable share of arms transfer agreements. For the 1993-1996 period, they collectively averaged 28.4 percent of all arms transfer agreements with developing nations. Individual suppliers within the major West European group have had notable years for arms agreements, such as France in 1992, 1993, and 1994 (\$6.7 billion, \$4.1 billion, and \$8.4 billion respectively), and the United Kingdom in 1993 (\$2.6 billion). Such totals reflected the conclusion of a few large arms contracts with one or more major purchasers in a given year.

The competitiveness of weapons produced by these major West European suppliers is enhanced by historically strong government marketing support for foreign arms sales. Because they can produce both advanced and basic air, ground, and naval weapons systems, the four major West European suppliers have proven quite capable of competing successfully with the U.S. and Russia for arms sales contracts with developing nations. Yet, with a shrinking global marketplace for conventional weapons, individual West European suppliers may find it more difficult to secure large new arms contracts with developing nations than in the past. Consequently, some of these suppliers may choose not to compete for sales of some weapons categories, reducing or eliminating some categories now produced. In an effort to maintain elements of their defense

industrial base they may seek joint production ventures with other key European weapons suppliers. [Ref.29: p50]

### 3. China

China emerged as important arms supplier to developing nations in the 1980's, primarily due to arms agreements made with both combatants in the Iran-Iraq war. The value of China's arms transfer agreements with developing nations peaked in 1990 at \$2.6 billion. After 1990, the value of these agreements averaged about \$550 million annually. The 1996 value of China's arms transfer agreements with developing nations was \$500 million. Meanwhile, China has become a major purchaser of arms, primarily from Russia.

For the immediate future, China does not appear likely to be a major supplier in the international arms market. Since the end of the Iran-Iraq war, few clients with financial resources sought China's military equipment. Much of China's weaponry is less advanced and sophisticated than weaponry available from Western suppliers and Russia.

During the 1980's, China sold and delivered CSS-2 Intermediate Range Ballistics Missiles (IRBM) to Saudi Arabia, and Silkworm anti-shipping missiles to Iran. Other anti-aircraft, anti-tank, and anti-ship missiles were sold by China to a variety of purchasers in developing countries. Reports persist in various publications that China has sold M-11 surface-to-surface missiles to a long-standing arms client, Pakistan. Iran and Syria have also reportedly received Chinese missile technology. Such reports call into question China's willingness to abide by its commitment to the restriction on missile transfers set out in the Missile Technology Control Regime (MTCR). With a need for hard currency and a product (missiles) that some developing nations would like to obtain, China may

pose an important problem for those seeking to stem proliferation of advanced conventional weapons into volatile areas of the developing world. [Ref.29: p.49]

#### **4. United States**

The U.S. has became the principal arms suppliers to most regions of the Third World for the last two decades. The reputation of American weapons was enhanced by their overwhelming success on the Gulf War battlefield. As a result, several Near Eastern countries have sought to purchase advanced U.S. weapons systems in the period since the war.

Further, because of the reduction in defense procurement in the United States resulting after the end of the Cold War, American arms producers focused greater attention on foreign military sales contracts to compensate for lost domestic orders. U.S. weapons systems have traditionally been built first for the American armed services, with only secondary consideration being given to foreign sales. As a result, these arms are more advanced, complex, and costly than those of most other suppliers of arms to the Third World.

Aggressive promotion of foreign purchases of American weapons has not been the traditional policy of the U.S. government. The U.S. government, through various means, has controlled and restricted transfers of U.S. weaponry to the Third World. But, as the sales record in the period since the Kuwait crisis of August 1990 demonstrates, the U.S. will make major sales of advanced arms to friendly Third World states whenever it believes that U.S. national interests will be advanced by doing so. The Bush

Administration did support an unsuccessful initiative to permit the export-import bank to guarantee some loans for U.S. foreign military sales.

The following table shows the trend in U.S. new arms agreement to the developing nations relative to other top exporters during the period of 1989-1996. [Ref.30: p.20]

	89	90	91	92	93	94	95	96
US	8,540	19,005	12,890	14,175	15,857	6,949	4,097	7,285
Russia	14,137	12,559	6,727	1,539	1,388	3,755	5,625	3,900
China	1,692	2,582	673	550	543	834	205	500
France	1,329	2,934	3,251	6,708	4,057	8,449	2,454	1,300
UK	1,087	1,643	336	1,979	2,562	730	409	1,800
Germany	483	469	1,682	220	641	0	307	100
Italy	362	352	112	550	320	209	818	300
Other European	3,504	1,408	1,233	990	320	1,147	920	900
All others	2,054	2,230	1,121	1,430	1,068	730	2,454	3,300
US share	26%	44%	46%	50%	59%	30%	24%	38%

Table 1. Arms Agreement to the Developing Nations

#### D. THE GCC AND ARMS SALES

The GCC states are considered the biggest arms customers for the last two decades. This phenomenon might continue until the six countries trust their defense system to counter any existing threats. A study conducted by the Office of Under Secretary of Defense (Acquisition and Technology) in 1994 showed the percentages of conventional arms to the Gulf states, led by Saudi Arabia. The study forecasted the worldwide arms trade deliveries from 1994 through 2000. The following charts depict the percentages of

arms import by each region in the world. The Middle East and East Asia have the highest percentage (30%) as shown in Chart A (Fig.3). From the Middle East, among the Gulf countries, Saudia Arabia gets 51%, UAE gets 13%, and Kuwait gets 8% with total of 72%, as depicted in Chart B (Fig.3). [Ref.31: p.100]

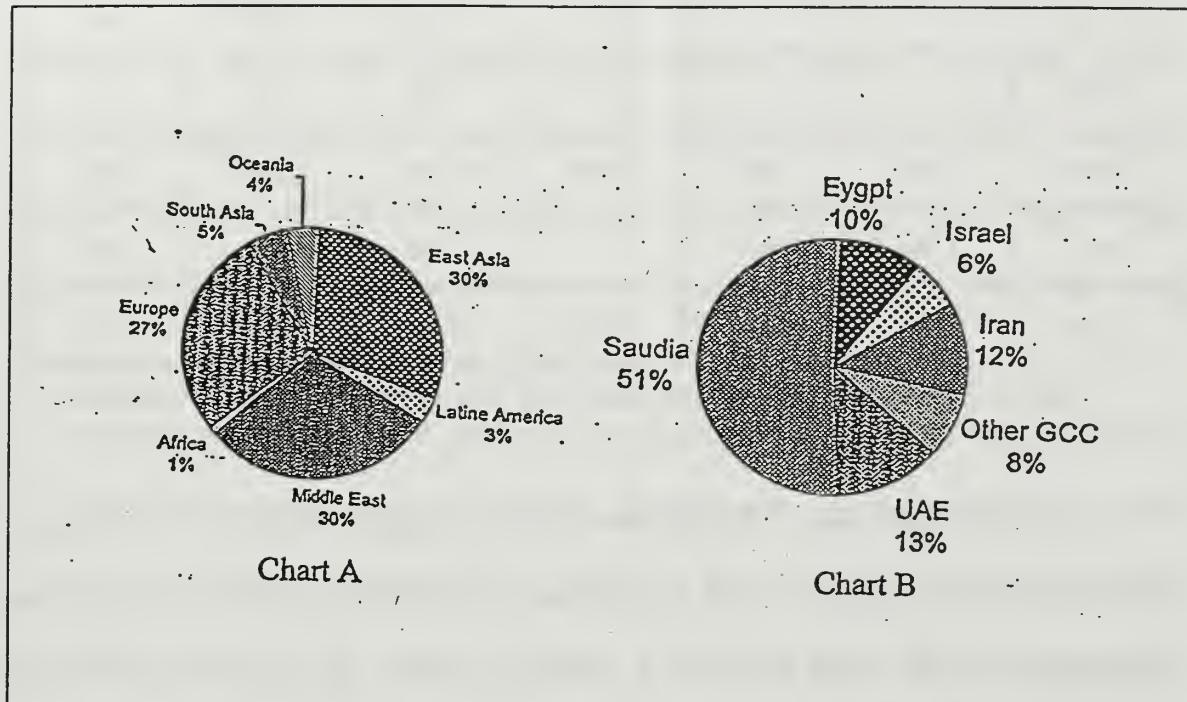


Figure 3. The Percentages of Arms Import

The report further mentioned that Saudia Arabia will remain the world's largest arms importer and is expected to acquire an estimated \$32.4 billion in military equipment during the remainder of this decade. Procurements will include advanced fighter aircraft; major ground arms, and support equipment and systems. An additional \$13 billion in arms are expected to be delivered to other members of the GCC. [Ref.31: p.101]

The following table shows the arms import in \$million (from 1987-1996) to the GCC states from different suppliers leaded by the U.S. [Ref.32: p11]

Recipient country	U.S	Russia	PRC	West European	Small European	All others
Bahrain	1,300	0	0	0	0	0
Kuwait	8,600	1,600	100	3,300	500	500
Oman	100	0	0	1,400	100	100
Qatar	0	0	0	4,300	0	0
Saudia	47,800	200	3,300	42,200	2,500	200
UAE	1,400	800	0	7,500	400	700
Total	59,200	2,600	4,400	58,700	3,500	1,500

Table 2. The Arms Import in \$Million (from 1987-1996) to the GCC Countries

The table depicts how U.S. weapon exports have played a major role in arming the six GCC countries. Also, it shows that the main competitors for the U.S. are the West European countries, which include U.K., France, Germany, and Italy. But, if the West European category were further detailed according to each country, then the number would not show any competition between the U.S. and each of the four major European countries. The table excludes the FMS construction agreement between the U.S. and Saudia Arabia and Kuwait. The FMS construction agreements during the same period were \$1.584 billion with Saudia Arabia [Ref.32: p.20] and \$150 million with Kuwait. [Ref.32: p.18]

#### E. ARMS SALES BETWEEN THE U.S. AND THE GCC

The above data shows the importance of U.S. security assistance to the GCC states, especially Saudia Arabia, Kuwait, and UAE. Nevertheless, this dependency might

decrease at any time because of the uncertain and competitive environment. The U.K., Germany, and Russia strive to increase their share in the arms market. They have tried to increase their weapon quality to reach the performance level of similar American weapon types, with lower cost. Recently, the GCC states have compared some American weapon systems with similar West European systems and they prefer the American system. However, as they accept U.S. systems because of their precedence in many criteria, the GCC states have suffered some problems with the security assistance program that administers the sales. Those problems are not limited to the GCC states but to all participants. Some problem areas are: [Ref.36: p.2]

1. Administration surcharge. A standard three-percent surcharge on all Foreign Military Sales costs customers millions of dollars. The administration transactions for all FMS cases are the same, regardless of the price of the deal. Whoever buys with the highest dollar amount will pay more administration cost than others paying lower prices, while the administrative transactions are approximately the same. The following table shows the relation between the administration surcharge with total cases in each year from 1991 to 1996. Although the FMS cases (and the administration surcharge as well) has grown about 19 percent while the number of open cases has dropped about 16 percent. [Ref. 36: p.53]

FY	Value of FMS cases (in billion)	NO. of open cases	Admin. Surcharge (in billion)
1991	\$185.211	18,308	\$5.556
1992	\$196.276	18,190	\$5.888
1993	\$221.809	17,481	\$6.654
1994	\$226.174	16,645	\$6.785
1995	\$224.016	15,916	\$6.720
1996	\$219.926	15,209	\$6.597

Table 3. Growth of Administration Surcharge and Number of FMS Open Cases

2. It takes an onerous amount of time for the DSAA to close out the account. That is because, in most cases, the U.S. government must wait to reconcile literally thousands of supply and financial transactions that could involve dozens of nations that have purchased similar items.
3. Customers now want to be viewed as partners, with more involvement in the entire process, rather than the restricted roles of customers or aid recipients. Requests to the Pentagon from FMS customers are not currently handled with responsiveness.
4. The bureaucratic "red tape", lax management and a reluctance to adapt to market demands have been to choke the FMS program.

Nevertheless, the security assistance program has enough reasons to continue performing as before. Charles Brown, who retired in 1990 as DSAA director after seven years in security assistance management, said: [Ref. 35: p.34]

We have got to remember that security assistance is a foreign policy tool and we must balance the political, policy and military-to-military elements with the economic imperative in a way that the program remains valuable to the U.S. government as well as the FMS customers.

However, Pentagon officials have begun to see the writing on the wall and in their ledger book. Robert Bauerlein, U.S. Air Force deputy under secretary for international affairs, said:

It is incumbent upon us to improve and streamline and make the FMS system more businesslike. Otherwise, we will see a significant diminution. In the amount of government-to-government cases, and if we lose that element of the government-to-government relationship, it will be a tragedy.

As an alternative to the FMS, some countries have switched to the Direct Commercial Sales. Figure 4 compares the two programs by depicting the advantages and disadvantages of both programs. [Ref. 34: p.35]

#### **F. COOPERATION AND OFFSET**

With declining defense budgets, cooperation between the different nations and U.S. is becoming paramount. During the Cold War, as a consequence of Warsaw pact cooperation, good cooperation existed between the U.S. and the Western European countries under NATO. The cooperation has expanded to include Third World countries. Cooperation between the U.S. and Egypt to produce the M1A2 tank is a good example. The hardware of the M1A2 tank is manufactured in the U.S. and shipped to Egypt as kits. Systems are assembled in Egypt by the local work force, with American defense contractors providing training and technical assistance.

Defense Secretary Cohen, in a new policy memorandum on international armaments cooperation, directs early commitment to international programs. Secretary Cohen says: [Ref.36: p.23]

## ADVANTAGES

### **FMS**

- Total package approached based on U.S. military experience
- Proven U.S. military-qualified logistic support
- Military-to-military interaction in planning, deployment concepts, training, doctrine, etc.
- Economies of scale because of U.S. government bulk procurements
- Minimal opportunities for U.S. military upgrade and changes

## DISADVANTAGES

### **FMS**

- Customer receives only best estimate on cost, which is usually inflate.
- Customers cannot negotiate directly with supplier nor determine specific items of supply
- Government has broad latitude to change, delay or terminate contract without penalty
- Customers has no legal recourse against Government
- Customer risks protected deliveries
- Customers cannot close its account with the U.S. government until the government say so
- Customer often ends up paying more for standard military item.

### **DCS**

- Potential for fixed delivery or fixed price, with penalty if contractor falls
- Ability to negotiate terms and conditions of contract
- More capability to tailor package to unique country needs
- New equipment guaranteed directly from production line
- Offset provisions can be included in one contract
- FMS surcharges not included

### **DCS**

- Required more program management by purchasing country
- Requires better negotiation skills on part of purchasing country
- May not be standard with U.S. military inventory
- Contractor can merge, go out of business or otherwise inconvenience customers

Figure 4. Comparison Between FMS and DCS

In the evolving environment of coalition warfare, limited resources, and a global industrial and technology base, it is DoD policy that we utilize international armaments cooperation to the maximum extent feasible, consistent with sound business practices.

It is DoD policy to deploy and support standardized or interoperable equipment with U.S. allies and to leverage the U.S. resources through international cooperative R&D, development, production, and logistics support program. Secretary Cohen has directed that: [Ref.36: p.24]

- We engage Allies in discussions at the earliest practical stages to identify common mission problems, and to arrive jointly at acceptable mission performance requirements.
- We will designate appropriate defense acquisition programs as international cooperative programs, noting that DoD must be a reliable international partner by funding fully the U.S. share of such programs.
- In support of designated international cooperative programs, DoD will give favorable consideration to transfers of defense articles, services, and technology consistent with national security interests, laws, policies, and international agreements.

## **G. FOREIGN MILITARY SALES AND OFFSET**

Based on preceding information, GCC states should always pursue offsets with FMS agreements. They must direct their effort to get the best from the U.S. security assistance. FMS and offsets (co-production) have a lot of advantages that can be utilized in order to acquire economical weapon system from the Unites States. The FMS guarantees the interoperability, standardization and supportability between each of the six countries within the GCC, and with the U.S. military as a defense alliance. Co-production can overcome some of disadvantages that arise from FMS and also benefit the six countries in the long run. Offsets can be utilized as an initiation for the co-production.

## H. CO-PRODUCTION WITH THE GCC

Armament co-production between the GCC states and the U.S. Government has been minimal during the long history of the U.S. security assistance program. Such cooperative efforts would encourage more arms trade with the U.S. However, co-production should not be limited only to the industrial countries. Some Third World countries possess the necessary industrial resources, money, labor, materials and power sources to manufacture their own weaponry, yet lack of experience prevents such efforts. The experience of the industrial countries is necessary to assist the Third World countries, such as those of GCC, to start and develop a defense industry. Since the 1980's, Saudi Arabia has initiated some light defense industry by manufacturing light munitions and small weapons.

By cooperating to produce certain weapon systems, the GCC and the U.S. will benefit in the following ways:

1. The equipment and weapons acquired from various sources by the GCC states have been modified to be suitable for the Arabian Gulf circumstances. In any future combat in the Gulf, the U.S. and the Gulf states will have similar weaponry, which leads to more interoperability and standardization between the two forces, without modification. Involving the Gulf states at the beginning of any program will produce a weapon that can function in the desert environment efficiently.
2. If the GCC states could exploit the current healthy investment environment for producing weapon systems, then those countries would help initiate their defense

industry. This step would enhance the future economy for the six countries when the oil is depleted.

3. The cooperation through co-production between the U.S. and the GCC states will enhance the cooperation among the six GCC states in both economical and military fields.
4. Co-production would attract those Gulf states, which have depended on West Europe as main sources for their arms. Qatar and to some extent, UAE, have depended mostly on West European sources.
5. If the defense industries through co-production will produce spare parts, then it will be in a closely located source to supply that local theater, in the case of any combat similar to the Gulf War. The U.S. forces faced significant of problems during the Gulf War with the spare parts. Establishing a warehouse facility to supply spare parts would ease the problem.
6. Co-production will result in a sharing of the overall cost for the weapon systems among the participants.

## **I. EARLY COOPERATION AND CO-PRODUCTION**

One of the primary reasons for international cooperation is cost reduction. By effectively sharing costs, each of the participating countries can obtain high-tech weaponry at a lower price. For this to be effective, costs must be adequately divided among the participants. [Ref.37: p.8] The mission needs statement for all participants should be matched to produce a weapon that serves their individual and combined national securities. As the U.S. interests continue in the Arabian Gulf area, there are

common national securities needs between the U.S. and the GCC states. Although the U.S. interest in the Gulf might decrease, the possibility of conflict in the Gulf remains high.

The GCC states accept most of U.S. weaponry systems with some minor modifications. Those weapons comply with the arms needs of the GCC states after some minor modifications. However, the U.S. burdened the total weapon cost through its acquisition cycle. If the R&D efforts include the customer requirements at the beginning of any program, then the allied country should be responsible financially. As a consequence, participants in the long run will get a relatively lower cost, more efficient, and more effective weapon. The coordination between the GCC states and the U.S. to initiate cooperation between them is necessary, particularly at this crucial era of declining defense budgets. Co-production is a type of cooperation, which has a lot of benefits for not just the Gulf states, but also for U.S. defense industries. Cooperation by production between the GCC and the U.S. should start at the beginning of any new program, which would improve the common national securities for both parties. The M1A2 tank, for example, is an appropriate program to implement such cooperation. The case of the M1A2 tank will be discussed later as a tool for cooperation between the GCC states and the U.S. Offset is considered one of the most effective instruments to enforce the cooperation between countries.

#### **J. DSAA AND FUTURE RELATION WITH ITS CUSTOMERS**

The GCC states are very important to the U.S. national security. The relation between the U.S. and the GCC states is dependent on many issues; arms export is one of

them. The DSAA is the agency, which has taken the responsibility to facilitate the trade procedures since it was established. The main purpose of this agency is to satisfy its customers, including different countries around the world and the U.S. defense industries, and to fulfill the U.S. national security goals. The track that the DSAA is following now does not comply with the changing world environment.

In an interview with the DISAM journal, the Deputy Director of the DSAA, Mr. H. Diehl McKalip said: [Ref. 38: pp.85-86]

Today, the FMS program is outdated, inefficient, and woefully ill equipped to respond to customer needs or contemporary market conditions. Declining markets, increased administrative costs, and heightened customer expectation combines to challenge the very continuation of the FMS program. We first need to examine whether we should continue the government-to-government transfer of defense articles and services on the same scale as in the past. If answer is in the affirmative, then we need to determine how FMS should be different from commercial sales, how we achieve a reasonable degree of customer satisfaction, and how we will pay to administer the program. This examination will question the historical premises and the statutory bases for what we do. But, it must be done in the next few years".

## K. SUMMARY

This chapter has discussed the current situation of the GCC states. The consequence of decreasing oil prices and the need of the GCC states for high-tech arms to counter the future regional threats have led to the combination of all the six Arabian Gulf forces in a collective effort.

The chapter then compared the arms suppliers available to the GCC states, including the U.S. The U.S. has different security assistance channels and the GCC states and other countries can chose the best among them. However, those programs have

advantages and disadvantages. The U.S. must modernize those programs in order to attract more customers, especially in the post Cold-War era.

Foreign Military Sales (FMS), Direct Commercial Sales (DCS), Offset (co-production) are available U.S. programs for the GCC states to use for acquiring their needs of arms and also to initiate local defense industries. The coordination among the six countries is required to reach the optimal benefit from U.S. security assistance program.

## V. GCC ARMS SOURCING ANALYSIS

### A. INTRODUCTION

This chapter will provide an analysis of FMS techniques and strategies using the U.S. M1A2 Main Battle Tank sales to various GCC states for comparison purposes. The FMS analysis is based on the background presented in earlier chapters and focuses on achieving optimal, effective weapon systems that provide the required interoperability, improve GCC self defense, promote GCC self-reliance, and maximize GCC defense funding through the lowest possible life cycle cost.

### B. M1A2 MAIN BATTLE TANK

#### 1. Introduction

The M1A2 main battle tank is the latest product-improved version of the U.S. Army's premier ground combat system. This tank entered service in the early 1980s, the first successful U.S. tank development program since the late 1950s. It represented a dramatic advance over the M60 series tanks which, throughout the 1960s and 70s, had been seriously overmatched by threat vehicles like the Soviet T-64 and T-72. Although durable, lethal and battle-proven in the Arab-Israeli Wars of 1967 and 1973, the M60 was vulnerable to antitank guided missiles (ATGM) including those carried by infantrymen, as well as conventional tank and antitank gun kinetic energy (KE) threats. [Ref.40: p.11]

During the M1 Abrams development, the predominant design priority was crew survivability. The design countered the threat by providing significant improvements in

armor protection, crew survivability, fire control, and mobility. Special armor was its most significant single enhancement. The armor was effective against both KE and chemical energy (CE) rounds and provided excellent protection against many threats directed fire weapons at various angles and ranges. Throughout the program, the development of the armor package has proceeded apart from the tank itself. Later incremental improvements in armor and suspension were added to the last few vehicles of the M1 production run, which became known as the improved M1. [Ref.40: pp.12]

The first major vehicle block product upgrade, the M1A1, added a more powerful weapon system (The 120 mm M256 smoothbore cannon), further improved the armor package, added on-board positive pressure NBC system, and included a more durable track. The M1A1, produced in greater quantities than any other variant of the M1 series, equips the majority of the fielded U.S. armor and armored cavalry units.

The second major block product upgrade, designated the M1A2, represents a significant technological shift. It incorporates a massive investment in digitization in its on-board systems, all aimed at improving the reliability, fight ability, and operational capability of the tank. Reliability is improved through the use of integrated circuits and greater reliance on built-in diagnostic capabilities. Operations and fight ability are enhanced through advances in battle management, fire control, survivability, maintainability, and supportability. [Ref.39: p.12]

## **2. U.S. Production**

Abrams production originally occurred at the Lima Army Tank Plant; with over 9,000 Abrams having rolled off the assembly lines of this facility, including those

produced for domestic and foreign sales. Currently, General Dynamics Land System (GDLS) is under a multi-year Army contract to upgrade approximately 600 M1/IPM1 tanks to M1A2. The plan will upgrade 10 tanks a month, over a five-year period. The cost of a new M1A2 tank is approximately \$4.3 million. [Ref.39: p.8] The table below shows the number of M1 tank in U.S. and their situation: [Ref.41: p.2]

Configuration	Number	Description
M1/IPM	3,141	The IPM1 is the improved version of the basic M1. The IPM1 has an extended turret, increased capacity shock absorbers, and added armor
M1A1	4,351	The M1A1 has a larger gun (120mm) than the M1; nuclear, biological, and chemical over pressure system; and additional armor protection
M1A2	87	The M1A2, an enhanced version of the M1A1, has depleted uranium armor, digital electronics, an improved commander's weapon station, a positioning navigation system, a commander's independent thermal viewer, an inter-vehicular information system, a radio interface unit, and a commander's integrated display.
Total	7,579	

Table 4 M1 Tank Production

### 3. The M1's in Desert Storm

Of 1,956 M1A1s in the theater of operations, none were destroyed, four were disabled and four were damaged but repairable. At least seven Abrams tank crews reported taking direct hits from Iraqi T72 125 mm main guns and suffered no serious damage. Their shells simply could not penetrate the Abrams tanks. Against overwhelming odds, American soldiers and Marines using M1A1 tanks dominated the battlefield. United States Marines reservists in a single engagement used Abrams tanks for the first time (13 tanks) and destroyed 34 of 35 Iraqi tanks. In fact, during four

engagements in four days, they stopped 59 Iraqi tanks (30 of them the top-line Soviet T-72) without losing a single American tank. After 100 hours of offensive operations, the Abrams tanks had operational readiness rate over 90 percent. Especially noteworthy was a night move of more than 300 U.S. Army tanks covering 120 miles, without a single breakdown. [Ref.42: p.12]

In a briefing session on the M1A1's performance at the 1991 Armor Conference held in May, a 1st Armor Division officer attributed the low causalities in the ground war to successful target engagement at long standoff distances. "We acquired targets at 4,000 meters, and had lots of kills at 3,000 meters," he said. "But I would say that the preponderance of our kills were beyond 3,000 meters. That's why our casualties were as low as they were." [Ref.43: p.25]

The Abrams tank exhibited good reliability during the Gulf War. The reliability is measured in terms of operational readiness rates-the percentage of mission-capable vehicles on a given day. Operational readiness rates reported during the Gulf War were based on whether the vehicle could move, shoot, and communicate. [Ref.44: p.21]

The Gulf War experience showed the capabilities of the M1 Tank. Weapon exhibition is important for both arms buyer and seller, and that was demonstrated perfectly during Desert Storm. Following the success of the M1 tanks, Saudi Arabia and Kuwait ranked this tank as the first tank to efficiently operate in the Gulf-like environment. The War Theater consisted of around 30 allied forces, and it was the perfect environment to show the capabilities of weapon systems. It was real war, real targets, and real weapon movement through real unexpected terrain. Desert Storm did not

demonstrate the M1 tank alone. Weapons such as the Patriot Missile and others were also examined and advertised to the world.

#### **4. The problems of the M1A2 in the Gulf environment**

- a. **Gas Turbine Engine:** In the Arabian Gulf area, the Abrams tank engine faced an extreme desert environment, which affected operational planning and caused concerns over sand ingestion. The Abrams tank's 1,500-hp gas turbine engine requires extensive air intake to perform optimally. The tank's air filtration system is adequate for conditions normally found in Europe and the U.S., including the Army's National Training Central located in the California desert. In the Arabian Gulf area, however, the tank's air filtration system required frequent cleaning because of the fine talc-like desert sand.

According to the tank's crew, fine sand was thrown up into the air by the tank's tracks and accumulated on top of the tank's air intake vent, which is located on the rear deck. The sand then clogged the system air filters. There was reduction of the airflow to the engine that caused a loss of engine power and speed. In extreme cases, sand passed through the filtration system and damaged the engine.

The Army had taken the extreme desert environment into consideration in deploying armored units to the Arabian Gulf area, and it stressed the need for frequent and intensive maintenance of the air filtration systems. Despite these early warnings, problems with the sand ingestion began to appear soon after

deployment, and more than 16 engine losses were encountered due to sand ingestion. [Ref.44: p.28]

**b. Weapon Ability to Distinguish Targets:** Crew and commanders reported that greater magnification and clarity are needed for the Abrams sights. The Abrams tank gunners use primary sights with 3-power and 10-power magnification. It has a thermal capability that allowed crews to see in dark, smoky, and hazy conditions. Crews and commanders stated that improved vehicles optics are necessary since experience in the Gulf War showed that the Abrams was able to see and hit targets at greater ranges than it was able to positively identify targets. Although Abrams gunners were able to see potential targets out to 4,000 meters or more, the images were no more than thermal "hot spots." Crews were generally unable to distinguish between friendly and enemy vehicles beyond 1,500 to 2,000 meters under clear conditions and as close as 500 to 600 meters or less during rainy conditions. However, the vehicles' main weapon could hit enemy targets well beyond this range, as the range of the Abrams 120-mm gun is 3,000 meters or more.

[Ref.44: p.29]

There are some lessons that can be derived from the tank failures in some functions due to the Gulf environment:

1. The M1 was designed to stand against the T-72 Soviet tank, which was distributed all around the world. Iraq is one of the T-72 owners who might threaten the U.S. interests in the Arabian Gulf region. It is not only the high temperature that

distinguished the Gulf desert from others, but also the tiny dust particles, which are the main enemy to equipment. Dust might completely or partially halt the vehicle if it is not considered up front in the design. However, this can be recovered later by applying some modification to the vehicle, which, as a consequence, will increase the weapon unit cost.

2. If the primary FMS customers, like Saudia Arabia, are included in the mission needs statement development, then those deficiencies would not appear at critical events like Desert Storm. Saudia Arabia knows its environment better than others and might have more needs, since the real Desert Storm did not cover the four-season environment.

### **C. M1A2 AND OTHER ALTERNATIVES**

There were three alternative main battle tanks to the GCC states to acquire, the UK's Challenger2 tank, the French Leclerc, and the M1 tank. In the Gulf War, the three tanks were used by their original manufacturing countries. Saudia Arabia and Kuwait chose the M1A2. UAE chose to buy the French Leclerc, while Oman acquired the UK Challenger2.

#### **1. M1 series tank**

The M1's technology and tactical success in Desert Storm made the tank the envy of the world armor community and generated foreign interest. Both Saudia Arabia and Kuwait now own M1A2 tanks produced at Lima Army Tank Plan (LATP). In a co-production program, M1A1 tank kit (hulls, turrets, components, etc.) are manufactured at

LAPT and shipped to Egypt for final assembly. Commercially, General Dynamics Land System (GDLS) also produces special armor packages for the South Korean K1 tank. Foreign military sales are listed below: [Ref.40: p.8]

Country	Quantity	Product Dates
Saudia Arabia	315 M1A2	1993-1995
Kuwait	218 M1A2	1994-1996
Egypt	555 M1A1	1991-1995

Table 5. M1 Tank Owned by Other Countries

Saudia Arabia pays around \$1.8 billion, while Kuwait received 218 tanks with a price around \$1.2 billion (unit cost equal around \$5 million)[Ref.45], without the FMS cost. The total price of the FMS for both countries are as follow:

	Saudia Arabia	Kuwait
Unit Cost	\$5	\$5
Quantity	315 M1A2	218 M1A2
Cost (million)	\$1,575	\$1,090
Admin. Charge 3%	\$47.25	\$32.7
Crating & Handling 4.5 %	\$70.875	\$49.05
Contract Admin. 1.5 %	\$23.625	\$16.35
Agreement Total Price	\$1716.75	\$1188.1

\* All Prices Are in Million

Table 6. Cost of Foreign Military Sales

## 2. The UK Challenger2 MBT (Desert version)

The British Challenger is being upgraded as the Challenger2. It adds an improved thermal sight (the thermal observation and gunnery was notoriously unreliable during the Gulf War), and a more sophisticated commander's station with hunter-killer capabilities in daytime, and access to the new thermal sight, which has fewer parts and has been repositioned. In addition, the new Challenger has a more sophisticated fire control system, incorporating an improved version of the digital computer used in M1A1 and with growth potential to include position/navigation gear to link it to command and control networks like IVIS or the British battlefield information control system. [Ref.46: p.34]

Oman bought 20 tanks of the Challenger2, manufactured by Vickers Defense System, worth over \$163 million. [Ref.46] The total quantity of Challenger2 tank have been produced until now is depicted in the following table: [Ref.45]

Country	Quantity	Comment
Oman	20	These have a number of modifications to suit operation in the Middle East, especially maintaining full engine power of 1,200 hp in temperatures up to +50C. The delivery 1995.
UK	386	First delivery 1994
UK	420 Challenger1	Delivered in mid-1990

Table 7. Countries Own Challenger2 Tank and Quantities

## 3. The French Leclerc MBT

Perhaps the most serious challenge to the dominance of the M1A2 could come from the French Leclerc, which may be the most sophisticated tank and the newest design in

production outside the U.S. All it lacks, among major components, is an independent viewer for the tank commander. And its armor may not be as great as the of Abrams' depleted-uranium-laced protection.

The Leclerc has a sophisticated computer system, used, among other things, for diagnostics, and it is capable of fitting into an IVIS-like command network. It also features a positioning system that is updated as the tank moves, and the Leclerc is capable of transmitting combat status and location. The Leclerc's composite armor is a modular design, allowing for upgrades or changes in the armor recipe as new threats emerge. [Ref.45: p.35] France has 420 and United Arab Emirates has acquired 338 AMX Leclerc MBT and 46 armored recovery variants in a \$3.6 billion deal in 1993. [Ref.48: p.22]

#### D. UNIT COST

Country	Tank	Quantity	Deal Total Cost	Unit Cost	Total Produced
Saudia Arabia	M1A2	315	1,800	5.7	8,670
Kuwait	M1A2	218	1,200	5.5	8,670
UAE	Leclerc	338	3,600	9.42	758
Oman	Challenger2	20	163	8.15	826
Total		891	6,763		

Table 8. Different Tanks Owned by the GCC States and their Unit Cost

From the above table, the following conclusion can be drawn:

1. The unit cost of the M1A2 is the lowest among the other alternative tanks
2. If the UAE and Oman decided to acquire the M1A2 instead of what they have now, UAE would buy 660 M1A2 tank and Oman would get 30 for the same cost they have

paid, i.e. \$3,600 million and \$163 million respectively. Or the UAE would pay \$1,850 million and Oman would pay \$109 million, if they chose the same quantity of M1A2, i.e. 338 of M1A2 and 18 of M1A2 respectively.

3. As the quantity of tanks increases, the unit cost decreases. The United States produces a weapon system to cover the three U.S. services and foreign countries that are interested in acquiring it. The European countries have relatively smaller militaries than the United States. Also, the competition in Europe is less than that in the United States. Therefore, the weapon unit cost for weapon produced in Europe is higher than the equivalent weapon produced in the U.S.
4. In the case of having a GCC collective force, it will be very costly to maintain spare parts for just 20 of the Challenger2. It will be more economical if the 20 tanks were M1A2. The 20 Challenger2 tanks require separate spare parts warehouses and different support equipment. The Leclerc tank acquired by UAE is more economical than the Oman tank case because it is almost the half of the quantity of the M1A2 in the Gulf. But if the UAE tanks were M1A2, then it would be easy to build consolidated support systems to serve the three forces, i.e. Saudi Arabia, Kuwait, and UAE.

## **E. LOGISTICS CONSIDERATIONS**

1. The following table shows the quantity of tanks available in the six countries, type, and the originating supplier. Tanks listed in the table are the active systems, which the six land forces depend on as their main battle tank. Others not mentioned here are

obsolete. The U.S. tank is dominant with total number of 1,182 tanks, France is second with total number of 338, and UK has placed 20 tanks with Oman.

	Saudia	Bahrain	Kuwait	Oman	Qatar	UAE	Total
M60 USA	450	106		93			649
M1 USA	315		218				533
Challenger UK				20			20
Leclerc France						338	338
AMX-30 France					33		33

Source: Anthony H. Cordesman, "The Military Balance in the Gulf", June, 1998

Table 9. Type and Quantity of MBT Available in the GCC States

In addition, the American tanks (M1 and M60) have a lot of things in common.

Some spare parts can be used in both tanks and both have similar logistic systems.

2. If the six countries acquire the same weapon systems, then they would require a smaller logistics support system than if they depend on different weapon systems. Consolidation always saves some money by optimizing the number of weapons to be acquired. Instead of having 1,573 as shown in table, the GCC, as a collective, might need a lower number as the logistics systems could help provide a higher operational availability rate.

## F. M1A2 ACQUISITION THROUGH FMS BY SAUDIA ARABIA AND KUWAIT

### 1. Choosing the M1A2

Saudia Arabia has long recognized the need for more modern tanks and sought improved armor beginning in mid 1980s. Its goal was to develop a force using the M1 tank. This offered not only one of the world's most effective weapons systems, but one that could be finally supported and upgraded over time by the U.S. Army, which would improve U.S. Army rapid deployment capabilities. Saudia Arabia faced major uncertainties, however, over whether the U.S. Congress would permit such sales.

As a result, it examined alternative tank suppliers including Brazil, Britain, France, and Germany. Saudia Arabia announced in February 1988 that it had selected the M1A1 and EE-T1 Osoro, built by Brazil, for some form of co-production in a purchase that might involve some 315 vehicles and a \$1 billion contract. One issue delaying the decision to buy the M1 was whether the U.S. was willing to sell the M1A2 version of the M1, with a 120-mm gun. Another factor in a decision delay was that the Brazilian Osoro existed in prototype form only, and production could not begin until 1990 at the earliest.

Saudia Arabia eventually decided to buy 315 M1A2s in September 1989, although the details of sale took roughly a year to complete because the U.S. Army had cut back on its own orders of M1A2. The reasons for the Saudia decision, as well as the complexity and sophistication of modern tanks becomes clear from an examination of the M1A2's performance characteristics.

Saudia Arabia reaffirmed its commitment to this sale in late July 1992. Senior Saudi sources indicated in September 1992 that the Saudi Army would proceed with the purchase of M1A2s to reach the total of 700 tanks. They indicated that Saudia Arabia planned to cap its total tank force at 1,200 tanks, with 700 M1A2s and the rest M60A3s.

[Ref.3: p.39]

Kuwait held trials to choose new tanks in August and September of 1992. The U.S. M1A2 seemed to have the advantage, with a top speed of 65 Km/h versus 50 for the Challenger2, superior braking, three hits out three at 2,000 meters versus one out of three, 10 hits versus eight at 4,000 meters, six hits firing on a slope versus two, and four hunter killer hits in 32 seconds out of four fired versus three hits out of four in 66 seconds.

[Ref.49: p.31]

## 2. FMS Process

The foreign military sales process has been chosen by both countries to acquire the M1 tank from the U.S. The FMS process was same for both countries and it was according to the U.S. regulations, starting with the Letter of Request (LOR) and ending with the delivery schedule and follow-on support agreements. Although it was a major transaction for both buyer and seller, and equally advantageous, the FMS process made no incentive or concessions for such a large purchase. Like all FMS customers and all FMS cases, both countries experienced the following problems:

1. **Administration Surcharge:** The three-percent surcharge cost is considered one of the mains FMS disadvantages for valuable customers, such as Saudia Arabia and Kuwait. The administration transactions are similar in any FMS case. What is

different is the deal price on which the administrative cost is based. For example, whether the deal costs \$3 billion or \$500 million, the FMS channel for both deals would be the same. However, the administrative cost for the first customer will \$90 million, while the cost for the second is \$15 million. This differentiation certainly makes valuable customers criticize the straight three percent rate for all customers, regardless of the FMS case amount.

This flat percentage fee might direct valuable FMS customers to seek Direct Commercial Sales. Saudia officials already have intimated to U.S. government and industry officials that Riyadh may go directly to U.S. contractors for its next major F-16 fighter and main battle tank purchases. Such a move would cost the government more than \$140 million in lost surcharges. [Ref.50: p.1]

There is a considerable debate regarding the three-percent surcharge, which is still required between the customer countries and the U.S. Government. "The Saudia Government had been complaining for years about FMS surcharges. They always said they wanted a corporate rate in accordance with their size. But we had to explain to them over and over that by law, we had to charge them. That's the way we had to do business so that DSAA remains self-funded," Charles Brown said, a retired U.S. Army lieutenant general and former head of DSAA. [Ref.50: p.34]

2. **Bureaucratic Red Tape:** Saudia Arabia, Kuwait, and all FMS customers always prefer to procure U.S. weaponry through FMS because of the U.S. government guarantees support, and because of the close military-to-military involvement that comes with an FMS packages. However, the bureaucratic red tape, lax management,

and a reluctance to adapt to market demands are beginning to choke the FMS program. FMS is overly complex and confusing, especially where purchases of major weapons systems are concerned. Policies and procedures are often poorly understood by the DoD personnel responsible for carrying them out and so it is of little wonder that the foreign customer becomes confused." [Ref.51]

The DSAA has been performing its transactions in a governmental directive configuration, not like an international business. The directive configuration resolves the tension between efficiency and effectiveness by configuring organizations for optimal efficiency, while showing less concern of effectiveness and stockholder collaboration. They avoid issues of adaptation and collaboration that force a reexamination of current operations. Instead, they focus on maintaining internal order, attempting as much as possible to cut the organization off from disruptive external influences. Serving as the focus of decision making, general managers set an organization's goals and make plans to ensure that all members act in concert with minimal stakeholder input. They insist on formalized jobs and standardized work to maintain orderly, reliable, and coordinated activity. [Ref.52: pp.7-8]

The purpose of the directive configuration is order. It describes an environment that is stable, simple to complex, populated by machine bureaucracies that operate best when disturbances are few. Machine bureaucracies maintain order by extending their influence externally to minimize threats to their hegemony and by setting up internal standard operating procedures and controls to ensure a smooth flow of operations. [Ref.52: p.28] The directive way of doing work is efficient in a stable

environment like the Cold War era. To continue the previous success, the DSAA must seek management configurations suitable for international business in an uncertain environment. The DSAA organization must be adaptive and flexible to any changes in the world.

3. **Congressional intervention:** The FMS process consists of 30 days of Congressional review to the FMS case. The Congress must give the green light to any arms sales, or deny it. Even if Congress makes its decision on "day one," the customer must wait 20-30 days to hear the result, a lag time which can severely impede its success with alternate suppliers. The waiting period is especially difficult in times of emergency. In the past, many requests from Saudi Arabia have been denied because the Congress thought that this weapon would threaten Israel.

The M1 tank faced the same problem. There was a high possibility that the Congress might block the sale of M1 tanks to Saudi Arabia. The impact of blocking such a sale to Saudi Arabia might then block sales to Kuwait, too. Recent studies proved that every \$1 billion in FMS generates roughly 35,000 man-years of direct employment for U.S. industry, and another 26,250 man-years of indirect employment in surrounding communities. In other words, every man-year of employment directly associated with the production of defense equipment for overseas sales creates an additional 0.75 man-year of employment in the surrounding community. [Ref.53: p.84] If the sale of M1 tanks to Saudi Arabia, and as a result also the sale to Kuwait, was denied by the Congress, then the following consequences would happen:

- The amount of the two deals totals \$3 billion, which means 105,000 man-years of direct employment for U.S. industry and another 78,750 man-years of indirect employment in surrounding communities.
- Every dollar in overseas sales that flows into the U.S. generates, on a national average, another 96 cents for the communities in which defense firms are located. Moreover, tax revenue generated for the federal government is roughly 25 percent of the total income generated by overseas sales. [Ref.53: p.84]
- Congressional denials of weaponry might affect the future relationships with Saudi Arabia and other Gulf countries.
- The unit price of the tank would increase dramatically which, in turn, would affect the future program of the tank. The experience of General Dynamics was instructive. In the absence of significant foreign sales, GDLS contended that by 1993 it would have to shut down its Detroit, Lima, and Scranton plants that produce the M1. GDLS contended that the U.S. would face enormous costs in reopening M1 production lines, once the plants were shutdown. By GDLS's estimates, closing the plants would cost the government \$200 million, weaken the tank design and engineering community, and 15 percent of the vendors involved in tank production would be forced out of business. According to the company, it would take 48 months and anywhere from \$500 million to \$31 billion to restart the industry from a cold base. [Ref.54: p.57] As a result, those additional costs would increase the unit cost.

4. **Customer's Oversight:** The FMS customers have nothing to do once they submit the LOR, until they get what they require. The buyers mentioned are no longer willing to tolerate the take-it-or-leave-it manner in which the Pentagon does business. For example, the Pentagon cannot negotiate the terms and conditions of their purchases, and does not allow customers to monitor disbursements or unexpected charges to their accounts. [Ref.50: p.34] With major weapons programs, thousands of spare parts and equipment are pushed on the customers, and often the customers have no clear idea what is being delivered and how it relates to their system. [Ref.51]

## **G. M1 TANK OFFSET - CO-PRODUCTION**

GDLS has established in-country suppliers of components and subassemblies for their products as part of the tank sale to U.S. Allies. These actions are taken on a sale-by-sale basis. In Saudi Arabia, GDLS established a joint venture with AEC (Arabic Electronics Company). This was a project by GDLS and Saudi Arabian investors to establish a company capable of manufacturing electronic components for the tank. The long-term goal was to grow the company from a supplier of military electronic units to a commercial production house. Today, AEC is the largest Saudi Arabian supplier of electronics components for AT&T in the Arabian Gulf region. Its commercial sales base supersedes its military contract sales. [Ref. 55]

Another example is the establishment of a tank production plant in Egypt for the in-country production of M1A1 tanks. The goal of the Government of Egypt and the United States was a regional security arrangement that provided indigenous production of armored vehicles for the Egyptian Army. A ten-year project among the U.S. Government, GDLS and the Egyptian Ministry of Defense resulted in the design and completion of a tank production facility in Egypt. GDLS manufacturing assistance teams worked with the military ordnance department to increase the content of the 555 M1A1 tanks purchased by Egypt. In the final years of the project, the Egyptian Tank Plant was producing and assembling over 70% of the M1A1 tank. They continue today to be a potential source of components for M1A1 tanks when sold to other nations. The reasons for establishing these business relationships (joint ventures and production plants) are to meet the security interests of the U.S. and its allies fulfill offset requirements as a condition of the sale and

provide the host nation an indigenous supply source. So the GD history is one of growing local production and suppliers as a part of the sale of their military products. The size of the non-United States suppliers and manufacturing base in each country is subject to negotiation. [Ref.55]

The building or assistance of establishing a firm such as AEC, mentioned above, has advantages which can be summarized as follow:

1. The offset agreement could be a tool to encourage countries to acquire a weapon system from a particular country that offers the best offset. Saudi Arabia and Kuwait have requested some offset from the U.S. The AEC is good example of that offset.
2. The AEC has participated in establishing the infrastructure of electronic industries in Saudi Arabia. This step would indicate the possibility for further successes for such projects in the Gulf region.
3. The manufacturing of the spare parts in country makes logistics tasks easier. Saudi Arabia, in the case of AEC, has the ability to produce its parts needs domestically. U.S. troops, located in Saudi Arabia, could get their needs from Saudi Arabia without waiting for delivery from the U.S. The logistics shortage encountered by the U.S. troops during the Desert Shield could have been solved if there had been a spare parts facility in Saudi Arabia or any of the GCC states. As the Arabian Gulf area is important to the U.S., the U.S. troops will remain in that area for long time. Therefore, the need for spare parts to be available in the Gulf area is very important for the U.S. as well as for the GCC militaries.

4. Such in-country facilities can perform the depot maintenance domestically rather than returning items to the U.S. Parts are sent from the GCC countries to U.S. for depot maintenance, which is a significant cost. The availability of such in-country facilities can perform this type of maintenance and save money and time.
5. In-country facilities can upgrade the weapon on-site. If there is a modification on the tank in future, then the upgrading could be performed in Saudi Arabia.
6. Local parts and maintenance facilities would not be limited to the M1 tanks, but could serve other weapon such as the M60A3.

## **H. LESSONS LEARNED FROM THE M1A2 CASE**

The M1A2 tank sales to Saudi Arabia and Kuwait were successful enough to be used as an example for further military cooperation between the U.S. and different countries around the world, especially the GCC. This FMS case could be used as a guideline for the collective GCC countries' military to acquire their future weapons needs, in order to reach their self-defense goals. The following points are extracted from the M1A2 case with some recommendations suitable for the collective GCC as one unit:

1. The GCC states should come together and decide what weaponry they need to acquire, discuss the available alternatives and choose the best for their need, environment, and budget. This will increase the number of system sales and eventually reduce unit cost.
2. The quantity of the selected systems should be considered in a consolidating manner. This will make the system acquisition more economical and fulfill the required cooperation among the six countries.

3. The main goal for the six countries should be reaching high levels of interoperability and standardization among the GCC and with the allied forces, especially the United States and NATO. Since the U.S. always seeks such interoperability and standardization with NATO, the U.S. weapon will fulfill this requirement.
4. The GCC should seek more direct offsets that directly relate to the system. The offset project should be distributed among the GCC countries, according to the best location in the Gulf to benefit or support the project.

The U.S., to remain in a position of arms export superiority, should improve its foreign military sales program by discussing the following points:

- One. Invite its valued friends and customers to participate in any new program at the missions need statement discussion phase. This would encourage such countries to participate in the program from the beginning and burden some cost, especially the R&D, with the U.S. to get lower priced weapon systems in the future. This would also minimize the cost of further modification for the systems to make them suitable for the customers' environment.
- c. Involve the Congress at the beginning of the program. The Congress decides at that time which countries are eligible to acquire the system.
- d. Discuss the FMS administrative charges and let the customers monitor those costs. The three-percent charge does not help the DSAA cover its cost and customers are not satisfied to pay considerable extra money just to do business with the U.S. Government.

## I. SUMMARY

This chapter discussed the FMS sale of the M1A2 tank to Saudi Arabia and Kuwait for use as an example for further cooperation between the U.S. and the GCC states. It demonstrates the benefits for the two parties in dealing with each other. Getting powerful, economical, reliable, interoperable U.S. weapon systems is the key for GCC self defense. Reducing the unit cost and supporting U.S. defense industries would be also advantageous to the U.S.

The chapter identifies the disadvantages of the current FMS process to accomplish such transactions. Although there is considerable competition from other industrial countries, the U.S. FMS program has not changed to more business-like practices. For FMS to facilitate the existing dominance of the U.S. defense industry, it has to perform in an adaptive configuration and not in its current directive configuration.

Co-production is one way to attract more customers and to share the burden of cost between different nations. It also assists in developing the industry infrastructure in the Third World countries such as the GCC states. Lastly, the chapter lists some advantages that the co-production will attain as a tool of FMS for the U.S. and for the GCC states as well.



## VI. CONCLUSIONS AND RECOMMENDATION

To improve cooperative efforts in arms trade, the GCC states and U.S. should proceed as follows:

### A. GCC STATES:

#### 1. Conclusions

The unity among the six GCC states is not strong enough for them to independently defend themselves. A key factor needed to achieve such unity is weapon standardization and interoperability among the GCC militaries. Because the majority of imported weapons are American-made, Saudi Arabia, Bahrain and Kuwait currently share a level of standardization and interoperability which allows them to work as one military. Oman, Qatar and the UAE need to follow suit. Based on the M1A2 tank, the U.S. weapon systems appear to be the most suitable, giving the GCC militaries the required power and mobility in order to defend themselves with autonomy. As oil prices decrease, the U.S. weapons are the most affordable compared to other weapons from around the world.

Acquisition from stocks of existing weaponry is a short run solution for the security of the region. The six countries have not exploited offset strategies for their high arms expenditures during the last decades. All offset projects in the Gulf region have evolved as civilian industries or civilian services, such as an electrical power station or civilian aircraft maintenance. There is no offset agreement to create a weapons industry in the Gulf. Implementing this strategy for future arms manufacturing would improve the self-defensive capability over time.

## **2. Recommendations**

To reach the required level of unity, the GCC countries should discuss the following points when they decide to acquire a major weapons system:

One. The six GCC states should coordinate their arms purchases to optimize their efforts.

Two. The strategy of weapon system acquisition should place emphasis on the total life cycle cost.

Three. By establishing defense industries through offset agreements, operational costs will be reduced and, simultaneously, will minimize the weapon's life cycle cost. For example, manufacturing spare parts for tanks or any other major weapon will reduce the weapon's operational costs in the future and increase the region's self-defending capabilities.

## **B. THE UNITED STATES.**

### **1. Conclusions**

The U.S. has been the largest arms supplier to the GCC, especially after the end of the Cold-War era. However, this precedent is threatened by increasing competition from other industrial countries around the world. The DSAA, which executes the arms transfers from the U.S. to the recipient countries, should consider the following:

One. The DSAA has not changed its methods since the Cold War era, and revisions are needed. The Cold War environment was stable and certain, and the current environment is more unknown.

Two. The DSAA deals with all customers in the same way, according to the regulation, regardless of the dollar size of the customers' case. Customers like Saudi Arabia, which is a major buyer of U.S. arms export, have been treated like any other intermittent, low volume customer.

Three. The DSAA, by blindly applying the security assistance regulation, has become an unresponsive organization. The customer has to initiate the arms sale and negotiate the contract according to U.S. regulations. When the agreement is reached, regulations must be followed without exception or deviation. This unresponsiveness might cause some major customers either to shift from FMS to DCS or to other arms suppliers' countries. Either way, the impact would have a negative effect on the DSAA organization as well as the continuity of the U.S. security assistance program and possible U.S. to GCC interoperability.

## **2. Recommendations**

One. The DSAA should transform its management's configuration from a directive organization to an adaptive organization. This will make the DSAA more attractive in this competitive arena. A proactive approach would be to participate in exhibitions to promote weapon systems to international customers. Existing (off-the-shelf) technology could be demonstrated in military maneuvers inside the U.S. or abroad. New weapons in the Concept Exploration phase could be introduced to select countries, which would then have an opportunity to share in R&D costs and eventually receive lower system unit costs to the advantage of all parties involved.

Two. The DSAA should encourage different arms programs that have benefits to all parties, according to the sales situation. Particular cases might be handled with FMS and some type of offset to motivate the negotiation to acquire certain weapon system. While advantageous to the international buyer, offsets also benefit the security assistance program and defense industries. The DSAA can merge the FMS and DCS, capitalizing the available advantages and eliminating the existing disadvantages in both programs. Applying both programs independently perpetuates their disadvantages.

Three. The DSAA should coordinate between the different U.S. military services (Army, Navy, Air Force, and Marines) and the U.S. defense industries in their varied services to international customers. Such efforts would allow the DSAA to find an optimal solution on a case-by-case basis and minimize duplicated transactions in the system. Tighter control of DSAA administrative costs will reduce those costs in the future, but may actually increase DSAA funding as U.S. FMS becomes more attractive.

If the following proposed points were applied, the DSAA might become more efficient and effective in future FMS cases:

One. Send their representatives to the allied countries to better understand the customers' needs.

Two. Try to coordinate with the services in DoD, matching their needs with the allied countries' needs, if possible.

Three. Initiate and coordinate channels of communication between the DoD services and countries that have similar requirements.

Four. Initiate studies and research to find the appropriate method of cooperation between the U.S. and countries involved in FMS.

### **C. ANSWERING THE PRIMARY RESEARCH QUESTION**

**What are the disadvantages of current arms sales process to the individual six Arabian Gulf countries? How can the existing security assistance process be improved to minimize the problems in the future, under the Gulf Cooperation Council (GCC)?**

Some of the problems with arms sales to the individual six countries are listed in Chapter II. However, the main disadvantage is lack of unified strategy. The individual country purchase arms without the coordinated selection between the six GCC states. The existing systems lack interoperability and standardization. Under the GCC, when the six countries decide to acquire a major weapon system, the following steps are recommended:

1. According to their security need, the six GCC states should select the appropriate arms supplier that has the most affordable, reliable and most high-tech weapon system. As discussed in chapter IV, the U.S. is one of those suppliers that have produced many weapon systems which meet the above-mention criteria.
2. The required weapon system should be selected by coordination with the military service in the supplier country. In case of the M1A2, the GCC states should coordinate with the U.S. Army through the DSAA. This step might take two phases:

- If the weapon system is off-the-shelf, then the effort should be concentrated on how to modify the system to perform efficiently in the unique Gulf environment.
- If the required system is not available then the coordination should be extended to include the U.S. military service if there are common interests. This will encourage shared R&D cost, which leads to minimizing the system unit cost for all participants' parties.

3. The six Gulf countries should coordinate among themselves to determine the optimal number of systems required defending the Gulf region. The decision-makers should not seek to acquire the total number requested by separate country actions. Instead, they should focus on the overall quantity and consolidate resources in order to acquire the most effective and efficient quantity, minimizing the administrative cost and burden.

4. The six GCC states might select the type of offset that is more practical for them. The direct offset is the best practiced in two types of co-production. Production or assembly of the system in the Gulf (such as the co-production of the M1A1 tank in Egypt) is one form. The other option might be to produce some major spare parts for the chosen weapon. The production of circuit boards for M1A2 by Saudi's Advanced Electronics Co. as part of the M1A2 tank program is an example. This step will help to establish a defense industry infrastructure in the Gulf. The six countries should choose, either in this phase or later, the most appropriate country among them to build the required facility.

#### **D. ANSWERS TO SUBSIDIARY QUESTIONS**

##### **1. How could cooperative co-production be implemented to improve the trade relations between the U.S. and the GCC?**

The relationship between the GCC states and the U.S. should not exist solely on the issue of oil in the Gulf region. Currently, the U.S. needs the Gulf oil, and the Gulf states

needs the U.S. for protection from threats. The trade between the two parties has improved in many areas. Unfortunately, in the military arena, the roles are set with the Gulf states as buyers and the U.S. as a seller. Although the Gulf states are important customers to the U.S., they acquire only off-the-shelf weapon systems. Any further industrial cooperation, such as the defense co-production, will definitely encourage other areas of cooperation between the two parties.

**2. What are the future possibilities for the GCC states to be defensively self-reliant by producing arms with the help of U.S.?**

As the oil prices gradually fall, the GCC states' ability to acquire new and high-tech weapons will be reduced as well. One solution for this problem is to support the future welfare of the Gulf States by building industry, especially defense facilities, to reinforce the future of the GCC economy. In addition, the defense operations will reinforce the future security of the region. With required defense industries in local operation, then the GCC can control production under the available budget to meet its regional security needs in the future.

**3. Do co-production and cooperation affect U.S. defense preparedness, especially in critical zones like the Gulf region?**

The availability of defense industries in the Gulf would help U.S. forces in the future in two ways:

- The modification kits, which are added to systems to perform efficiently in the Gulf environment, could be manufactured in the GCC industries. The U.S. forces might request such kits for their weapon systems only if they are deployed to the Gulf area. Those kits would be supplied to the U.S. troops after they had been tested in the Gulf environment by the Gulf military forces.

- The available supply of spare parts and depot maintenance facilities near the battle theater will reduce the lead-time for parts requests. It would not be necessary for the U.S. forces to send their reparable items to the U.S. for required depot maintenance. The local Gulf facilities could perform such maintenance, as well as supply locally produced spare parts.

**4. How will U.S. security assistance (and foreign military sales (FMS) as one of the most preferable tools) reforms increase the level of foreign partnering on U.S. weapon systems?**

The current security assistance program is not flexible or reactive to international changes in the political world or the arms market. This position has hindered the sale of U.S. weapons which have been successfully fielded in the last decade. The most significant difficulties with this system are the administration surcharge and congressional intervention. Therefore, reforming the FMS program, by having reasonable administrative costs and reducing congressional intervention, would probably result in more countries encouraged to choose U.S. weaponry. With more of these international purchases, the administrative costs, collectively, would be increased, and cover the needs of the DSAA.

## LIST OF REFERENCES

1. Anthony H. Cordesman," Bahrain, Oman, Qatar, and the UAE, Challenges of Security", CSIS Middle East Dynamic Net Assessment, 1997.
2. M. E. Ahari," The Gulf and International Security, The 1980s and beyond": J.E. Peterson, "Security Concern in the Arabian Peninsula", St. Martin's Press, 1989.
3. Anthony H. Cordesman, "Trend in the Military Balance and Arms Sales in the Southern Gulf States After the Gulf War: 1990-1993", CSIS Middle East Dynamic Net Assessment, (URL: <http://www.csis.org>), 1998.
4. Al-Qassim Waheed A.," Restructuring GCC Security Policy After the Gulf War," Master's Thesis, Naval Postgraduate School, Monterey, California, 1994.
5. Judd, W., "A Reassessment of U.S. Strategic Interest in the Post-Gulf War Middle East", 1996. ([http://www.is.rhodes.edu/Modus\\_Vivendi/Peak.html](http://www.is.rhodes.edu/Modus_Vivendi/Peak.html))
6. Steve A. Yetiv," America and the Persian Gulf", London, 1995.
7. Mary E. Morris," The Persistence of External Interest in the Middle East", National Defense Research Institute, 1993.
8. Bernard Reich and LTC Stephen H. Gotowicki, U.S. Army, "The United States and The Persian Gulf in the Bush Administration After the Gulf War", Royal United Services Institute and Brassey's Defense Yearbook, 1992, London: Brassey's (UK), 1992.
9. Major Jim Dart, USAF, "USMTM: Point Guard on the Arabian Peninsula", the DISAM journal, winter, 1991/92.
10. Arm Control and Disarmament Agency (ACDA), World Military Expenditure and Arm Transfer, 1989, Washington, GPO, 1990; and Arm Control and Disarmament Agency (ACDA), World Military Expenditure and Arm Transfer, 1993-1994, Washington, GPO, 1995.
11. Richard F. Grimmett, Conventional Arms Transfers to Developing Nations, 1989-1996, Congressional Research Services 95-862F, August 4, 1995.
12. U.S. Defense Security Assistance Agency (DSAA),"Foreign Military Sales, Foreign Military Construction Sales and Military Assistance Facts as of September 30, 1994," Department of Defense, Washington, 1995.
13. Jane's defense Weekly, January 17, 1996.

14. Arm Control and Disarmament Agency (ACDA), *World Military Expenditure and Arm Transfer, 1990*, Washington, GPO, 1991.
15. Arm Control and Disarmament Agency (ACDA), *World Military Expenditure and Arm Transfer, 1993-1994*, Washington, GPO, 1995.
16. Anthony H. Cordesman, " The Military Balance in the Gulf", CSIS Middle East Dynamic Net Assessment Project, URL: <http://www.csis.org>, May 5, 1998.
17. Michael K. Woodward, "An Analysis of the Impact of Offset Requirements on the U.S. and Defense Industry", Master's Thesis of Science in Management, Naval Postgraduate School, Monterey, California, March 1995.
18. Duncan L. Clarke, Daniel B. O'Connor, and Jason D. Ellis," Send Guns and Money, Security Assistance and U.S. Foreign Policy", Praeger, Connecticut, 1997.
19. Michael N. Beard, Lt. Colonel, USAF, "United States Foreign Military Sales Strategy: Coalition Building or Protecting the Defense Industrial Base", Air War college, Air University, Maxwell Air Force Base, Alabama, March 1995.
20. Michael W. S. Ryan, " Assistance to the Persian Gulf Region". Edited by WM. J. Olson, "U.S. Strategic Interests in the Gulf Region", Westview Studies in Regional Security, 1987.
21. Draft Legislation Before the 103d Congress, the Peace, Prosperity, and Democracy Act of 1994 (Washington DC, 1994).
22. Defense Institute of Security Assistance, "The Management of Security Assistance", Fourteen Editions, Wright-Patterson AFB, Ohio, February 1994.
23. Lora Lumpe," Clinton's Conventional Arm Export Policy", *Arm Control Today*, May 1995,(URL: <http://www.fas.org/asmp/library/articles/actmay95.html>).
24. GAO, "Military Export: Offset Demands Continue to Grow", April 1996.
25. William Perry, "U.S. Military Acquisition Policy, Comparative Strategy", Vol. 13, Taylor & Francis: January-March 1994.
26. Jane's Analysis, "Middle East Contract Prospects Threatened as Oil Prices Slide", Jane's Defense Weekly, 4 February 1998.

27. Jane's, "Gulf States Face Up To Changing Alignments", Jane's Defense Weekly, 11 March 1998.
28. Anthony H. Cordesman, "Military Balance in the Gulf-Southern Gulf Forces Overview", CSIS Middle East Dynamic Net Assessment, (URL: <http://www.csis.org>), 1998.
29. Richard F. Grimmett, "Conventional Arms Transfers to Developing Nations 1989-1996", Congressional Research Services, the Library of Congress, The DISAM journal, fall 1997.
30. Anthony H. Cordesman, "U.S. Global Arms Transfer", CSIS Middle East Dynamic Net Assessment, (URL: <http://www.csis.org>), April 1998.
31. "World-Wide Conventional Arm Trade (1994-2000) A Forecast and Analysis", The DISAM journal, spring 1995.
32. Anthony H. Cordesman, "The Military Balance in the Gulf: Saudi Arabia", CSIS Middle East Dynamic Net Assessment, (URL: <http://www.csis.org>), May 5, 1998.
33. Anthony H. Cordesman, "The Military Balance in the Gulf: Kuwait", CSIS Middle East Dynamic Net Assessment, (URL: <http://www.csis.org>), May 5, 1998.
34. Several references written by Barbara Opall, Defense News Staff writer, Defense News Weekly.
35. Office of the inspection General "Foreign Military Sales: Administrative Surcharge Fund", September 30, 1997.
36. Paul J. Hoeper, Deputy Under Secretary of Defense, "International Armament Cooperation for the New Millennium", The DISAM journal, fall 1997.
37. Meuschke, Karl R., "International Technology Transfer: A Case analysis of the Multiple Launch Rocket System and the Patriot Missile System." Master's Thesis of Naval Postgraduate School, Monterey, California. June 1996.
38. Dr. Louis J. Samelson, "An interview with Mr. H. Diehl McKalip, Deputy Director, DSAA", The DISAM journal, spring 1998.
39. Wes Glasgow, Colonel Christopher Cardline, and David Latson, "The M1A2: Current and Future Program Plans", Armor journal, May-June 1996.
40. Captain Todd Tolson, "Building Tanks at Lima", Armor, November-December, 1996.

41. GAO, "Army's proposed M1 tank Overhaul Program", 1996.
42. Donald L. Gilleland, "M1A2: A Dominant Force On The Battle filed", Gulf War, The Defense and Security Review, 1992 Edition, Atalink Limited, London.
43. The Defense And Security Review, "Conventional Weapons Prove Worth In DESERT STORM", Atlalink Limited, 1992 Edition.
44. GAO, "Operation Desert Storm: Early Performance Assessment of Bradley and Abrams", January 1992.
45. Jane's Armor and artillery, 1997-1998.
46. Tom Donnelly, "Overseas Producers Attempt to Close the Armor Technology Gap", Army, September 1994.
47. Jane's Defense Weekly.
48. Ed Blanche, "Modified Leclerc On Test as Saudia Contest hots Up", Jane's Defense Weekly6 August 1997.
49. Jane's Defense Weekly, March 28, 1992.
50. Barbara Opall, Defense News Staff Writer, "Customers Abandon FMS; Cite High Cost, Inflexibility", Defense News, February 9-15, 1998.
51. An interview with Col. A. Latif Al-Hindi from the Kuwaiti Liaison Office, Embassy Of Kuwait, Washington DC, July 1998.
52. Robert, Nancy C, " Organizational Configurations: Four Approaches to Public Sector General Management", Naval Postgraduate School, January 30, 1998.
53. Mr. William Bajusz and Dr. David Louscher, "The Economic Costs of Arms Sales Curbs", the DISAM journal, winter 1988.
54. "Global Arms: International Operations of U.S. Defense Firms", the DISAM journal, winter, 1991/92.
- 55.. An interview with Peter M. Keating from General Dynamic Land System, June 1997.

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